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Teen Stress and the High School Experience:  
Fostering the Adaptive Abilities to Survive and Advance

A dissertation submitted in partial fulfillment  
of the requirements for the degree of  
Doctor of Education in Educational Leadership

by

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## **Abstract**

The purpose of this study is to examine the stress experience of teenagers during their high school years. The study uses existing research to identify causes of stress and stress-management techniques and then gathers students' perceptions through surveys and a group interview to provide student voice on the issue of stress.

Recent nation-wide efforts have been made in schools to provide more supports for the social and emotional well-being of students, but despite these efforts, stress levels of high school students remain elevated. Understanding the ways in which students identify stress and the adaptive abilities they use to manage stress will help schools to design environments and programming to meet the mental, social, emotional and physiological needs of their students.

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## Acknowledgements

“Our people are good people; our people are kind people. Pray God some day kind people won't all be poor.”

— John Steinbeck, *The Grapes of Wrath*

The above quote from the novel, *The Grapes of Wrath*, holds meaning to me for a handful of reasons. For one, the quote speaks to the perseverance of a people who left their homes in search of better opportunity and although they experienced agonizing setbacks during the journey, the family still managed to control their ability to be a good and kind people along the way. Additionally, and on a more personal note, this novel was the first piece of literature I read cover to cover in high school. I did not enjoy reading and I would often avoid doing so until I had an English teacher who acknowledged my dislike for reading and worked with me to eventually develop an appreciation for reading that I have enjoyed ever since.

Completing this project not only takes perseverance, but also involves many good and kind supportive people along the way. I want to thank my family, the EDLE faculty at the University of Arkansas, my cohort classmates and the hundreds of students and families I have worked with for over two decades of being in education. Thank you to my wife, Amy and our daughters Anna, Sophia and Madison who have patiently supported me along this journey. Thank you to my dissertation chair, Dr. John Pijanowski for your wisdom and guidance along the way. Thank you also to Dr. Kara Lasater, Dr. Ed Bengtson and Dr. Kevin Brady for agreeing to serve on my committee. All four professors were instrumental in my development as an educational practitioner. Thank you to my doctoral cohort partners for laughing and learning with me along the way. Finally, thank you to the many students and families who have entrusted their educational needs to me year after year. I have learned just as much from you as hopefully you have learned from me.

## **Dedication**

This work is dedicated to my wife Amy and our three daughters: Anna, Sophie and Maddie. You are each way better than I could ever hope to be. I am inspired by you every day.

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## CHAPTER ONE - INTRODUCTION

### Introduction

This purpose of this study is to examine how students experience stress and explore the adaptive abilities students use to manage stress. Because stress is a human experience, uniquely experienced by each individual, stress and stress management can take on a different meaning to each person. One of the first researchers to define stress and its effects was Hans Selye who explained that stress is an imprecise body reaction to any demand (Selye, 1974). Later prominent researchers on stress include Richard Lazarus and Susan Folkman who began to look at stress theory and defined stress as a relationship between a specific event in the environment and the individual who is experiencing the event. Experiences are unique to each individual, so the way in which a student views an event as stressful depends on the student's goals, values and adaptive abilities (Lazarus & Folkman, 1984). The use of the term *adaptive abilities* in this study refers to the inner and external resources a person has that can protect against and diminish a stress that is experienced. *Self-care* is mentioned frequently as an adaptive ability and sometimes the words are used interchangeably as self-care can be described as an intentional use of resources to reduce stress. Also, for the purposes of this study, *stress* will be defined as a strain (physical, mental, emotional) that exceeds the adaptive abilities of an individual and threatens his or her well-being. This definition allows for both the exploration of how stressful events are uniquely perceived by students and the investigation of the adaptive abilities (internal and external resources) students utilize to combat stress based on their own mental, physical and emotional development. Additionally, the role schools can play in helping students manage stress will be explored. Stress impacts the experience of high school students because stress is a condition that impairs a student's well-being by exerting a "relentless, insidious influence" on a

student's physical, mental and emotional functioning which are all critical areas that are important for brain development, academic engagement, and social competence (Evans et al., 2007). The words *students*, *teenagers* and *adolescents* are used interchangeably throughout this paper and unless otherwise noted, refer to high school age students, essentially 14-19 years of age.

The school district used for this study has established three pillars that form the basis of the board of education goals: equity, excellence and engagement. Within the pillar of engagement, a goal has been established to support programming to meet the varied academic, social, emotional and behavioral needs of each student. In 2015, as an effort to meet this goal and in response to teacher requests for a more cohesive and comprehensive approach, the school district partnered with a neighboring university to implement a student support system, known as the Comprehensive, Integrated, Three-Tiered System of Support (Ci3T) that was designed to integrate the academic, behavior, and social needs of students in to a school wide system of supports that included the following elements:

- An academic component with coordinated instruction linked to the Kansas College and Career Ready Standards.
- A social component including a curriculum for teaching social skills and character education which does include lessons on stress and stress management.
- A behavioral component including Positive Behavioral Interventions and Supports (PBIS). The PBIS framework clarifies, defines and then teaches behavior expectations to students (Lane et al. 2009)

This initiative represents acknowledgement by the school district that students are in need of support beyond just academic enrichment. An example illustrating this need is the rise of

social and emotional problems among teenagers with research demonstrating up to 60% of adolescents do not get the help they need when faced with symptoms such as anxiety and depression (Behavioral Health Barometer: United States, 2013). A national survey by the American Psychological Association in 2014 found that teens are the most stressed demographic, exceeding for the first time the stress levels of adults (APA, 2014). Because of literature that links stress with both internalizing and externalizing problems for teenagers (Grant et al., 2003; Kushner, 2015; McMahon, Grant, Compas, Thurm, & Ey, 2003; Moksnes, Espnes, & Haugan, 2014; Sheidow, Henry, Tolan, & Strachan, 2014), it is imperative students understand both how stress is identified and how to develop and apply adaptive abilities to manage stress. The results of this APA survey also present two current major trends about teenagers: a growing recognition that stress, anxiety, fear, and other negative emotions can interfere with learning, and a realization that, in today's high-pressure society, children and teenagers are as vulnerable to stress as any adult. (APA, 2014).

Human stress has been formally identified and studied since the early half of the 20th century when Hungarian-Canadian endocrinologist Hans Selye began to identify stress as a biological condition and noted that the body reacts to both good stress, called eustress and bad stress, called distress (Selye, 1974). As Selye's work progressed and other scientists began to look at how stress is interpreted and managed, the research primarily focused on adult symptoms. The concept of teen stress was not examined in initial research which suggests that teen stress was not believed to be comparable to the problems that stress causes in adults. However, in 2014, the American Psychological Association released the results of its annual *Stress in America* survey and revealed for the first time in the history of the study that American teenagers have become the most stressed population. The study went on to note that students report the

highest levels of stress during the school year (APA, 2014). This higher rate of stress identified during the school year is important for this research. If the school is significant enough of a factor in the lives of students to increase stress, then the school may be a significant enough factor in the lives of students to also decrease stress. When asked what students were doing to manage stress the survey found 42 percent of teens said they were either not doing enough to manage their stress or they're not sure if they're doing enough (APA, 2014). Stress continues to appear at increasingly earlier ages and although research into the topic of teen stress is a nascent area, understanding the way in which students experience stress is important research because it follows that teens with unmanaged stress become adults with unmanaged stress. An inability to manage stress at earlier ages creates a sensitization towards stress that over time, the level of stress needed to trigger episode onsets becomes increasingly lower with each successive incident which increases the risk of psychological problems (Stroud, 2018).

Since students are identifying they are stressed, capturing their perspectives on the topic and looking into ways they are developing adaptive abilities to manage its effects, particularly in school may help to shed light on some barriers to healthy engagement for students who experience stress. Without healthy engagement, it is extremely difficult for students to stay on track, graduate from high school and most importantly, develop necessary adaptive life skills that will guide them through future life experiences. Beyond identifying stress and the adaptive abilities to navigate high school and achieve graduation, the recognition of stress and stress management in high school is a lifelong skill that proves vital for students to succeed in post-secondary activities, such as college. According to a 2018 report from the National Center for Education Statistics, the number of high school graduates directly enrolling in college is now at 70% (National Center for Education Statistics, 2018) but research shows that an increasing



number of college students are not prepared to handle the stressors that accompany college. One report studying the effects of stress on college students indicated that students have not only increased in suicidal ideation but one in ten college students have actually attempted a suicidal act. (Liu, 2018). Colleges have also reported students are increasingly less willing to take responsibility upon themselves, deferring to an adult instead (Gray, 2015) creating learned helplessness and a dependent young adult population lacking the adaptive abilities to manage stressful situations.

### **Problem Statement**

This research will identify the ways in which students identify stress and the adaptive abilities they use to prevent the mental, physical and emotional damage that occurs from unmanaged stress. Specifically, this research seeks to understand the perceptions of students about stress, examine existing research about the effects of stress on students and use student voice to identify adaptive abilities that students develop and utilize to manage stress and promote their well-being. Additionally, this research will examine the role that secondary schools play to help students manage stress. This research hopes to provide information on the identification of adaptive abilities that students can use to manage stress and provide a set of organizational standards and practices that will assist schools and educational leaders in building a high school experience that supports the stressed student.

Presently, students are living in a society with new complexities that were nonexistent a decade ago. The ability to perform nearly any task with a small handheld device has greatly influenced the way in which teens view the world. Information, good or bad, is available at the push of a button. News, both fake and otherwise, is delivered instantly. The world is unfiltered, and students are gathering information through a virtual landscape during the most vulnerable

developmental times of their lives socially, emotionally, physically and mentally. Family and community dynamics have changed to where much of the human interaction that used to allow students to build adaptive abilities through social interactions are now performed behind a screen and are impersonal. Post-secondary school costs are on the rise. Colleges still continue to follow the model of filling their classrooms through scholarships to top students which places increased academic pressure on high school students in order to avoid student loan debt. The message for college-bound students becomes: Either get good grades or start out adulthood \$50,000 in the hole. When students equate bad grades to crushing debt, the stress associated with academic achievement can be overwhelming. What results in the wake of all these factors is the stressed high school teenager that is now part of a generation that reports higher levels of stress than those of their parents (APA, 2014).

Clearly, there are many factors that contribute to stress at any time. Standing in line for an unfamiliar roller-coaster during family vacation can cause stress. Notification of an upcoming dental appointment can cause stress. And as the APA survey points out, school can cause stress. Not only are students reporting higher levels of stress when school is in session as compared to the summer, when asked directly about the main cause of stress overall for students, the number one answer is school itself (APA, 2014). Any kind of constant stress on a body is not good. Living under the constant strain of stress has been strongly associated with poor mental and physical health (Cohen et al., 2007; Slavich et al., 2010). However, it is important to note that not all stress is bad. Stress can make students uncomfortable which allows for growth from unfamiliar experiences. Stress can help students stretch their own learning when an answer is not readily known. Stress is always present and is a mechanism built into the human body that helps humans navigate potential threats. One way to think about how stress affects the human

body is to use an analogy of thinking about our stress system as being controlled by a thermostat. Under normal conditions, our bodies tell our brains when to raise the thermostat and produce needed hormones such as cortisol or adrenaline and then when to lower the thermostat as the source of stress subsides, much like the thermostat in a home takes the temperature of the room and responds by turning on or off the appropriate machinery. Stress response is built into our human DNA and has contributed to human survival, so throughout time, humans have been continuously exposed to stress and have managed to prosper as a result. However, understanding that stress has been wired into humans since the dawn of man does not mean people have become immune to managing stress over time. In the case of teenagers, there becomes a tipping point when students have become sensitized to stress and the total stress load exceeds their adaptive ability to prevent stress (like being late for class) from taking control of their lives which leads to distress. If the stress thermostat is stuck on high all of the time because the body has not developed the adaptive abilities to control the thermostat, then something as benign as being late for a class can cause crippling anxiety which leads to additional developmental problems. According to Seymour Levine, PhD of the University of Delaware, “this sensitization actually alters physical patterns in the brain. That means that once sensitized, the body just does not respond to stress the same way in the future. We may produce too many excitatory chemicals or too few calming ones; either way we are responding inappropriately” (cited in Gerzon, 1997). The body responds to being late for class in the same way the body responds to being chased by a lion. Every event is now perceived as life and death. In these instances, stress can lead to disengagement, helplessness, depression or even suicide (Polanco-Roman, Gomez, Miranda & Jeglic, 2016).

### **Focus on Instructional and/or Systemic Issues**

School leaders must be able to recognize education trends and adjust accordingly. While some trends are highly visible, such as technology initiatives or flipped classrooms, other trends, such as student stress, may lie below the surface and not be immediately recognizable. Stress can lie dormant and not manifest itself until it is too late. As stress lies dormant, the student may begin to exhibit behaviors that a teacher could interpret as apathy or surliness instead of recognizing the symptoms of a deeper, festering problem of a stress disorder. Schools must be willing to acknowledge the effects that stress has on a student and proactively seek to develop environments that support students and diminish the effects of stress. Stress has been shown to reduce motivation and effort (Johnson, 1981). Stress had been linked to attention deficits and concentration (Erickson, Drevets, & Schulkin, 2003). Stress has been linked to more than half of all school absences (Johnston-Brooks, et al, 1998). Stress increases the likelihood of depression (Hammack, Robinson, Crawford, & Li, 2004). And, most unfortunately, stress has been linked to increased suicide ideation and suicide attempts (Polanco-Roman et al, 2016). Stress exists everywhere which means problems related to stress manifest in every classroom in every school. Despite research demonstrating that unmanaged stress can lead to severe mental and physiological consequences, current research appears to lag on the examination of how students perceive stress and what adaptive abilities the students use to manage this stress. It appears that some students are able to deploy adaptive abilities to manage stress better than others which inspires this research to understand why some students have successfully developed these skills whereas others have not.

The topic of stress and student efficacy to manage stress does not appear to be a primary focus for many school districts, however districts are being more proactive about recognizing the

social and emotional needs of students. As mentioned, the school used in this study has added a comprehensive-integrated tiered system of supports to assist in monitoring students beyond just academic indicators. Many schools - including the one used for this research - have focused on Trauma-Informed Care practices to address students' mental health needs. The school used for this research requires all teachers and staff to complete trauma-informed modules by the end of the current school year. The research on Trauma-Informed Care is backed by a National Survey of Children's Health showing that more than half of all U.S. children have experienced some kind of trauma in the form of abuse, neglect, violence, or challenging household circumstances (2012), which means conversely, half of all U.S. children have had no adverse family experiences and therefore, have not been exposed to a traumatic event. When compared to stress however, stress is unavoidable as everyone experiences it. A student does not have to experience a traumatic event in order to be affected by stress. While stress can certainly be a byproduct of trauma and adverse family experiences, stress can also be self-induced and unrelated to trauma-forming experiences. The inability to recognize stress and poor self-care habits are ways in which stress can manifest itself and become overwhelming. Also, stress, unlike trauma, can also be viewed as a good thing, particularly when managed in a healthy way, but it takes an understanding of how to recognize when stress is happening and having the healthy adaptive abilities to manage it.

One could argue that eliminating traumatic experiences for students would be a good thing, but the same argument would not be made for stress. Part of the education experience is for students to feel challenged. It is through challenges that students have the opportunity to expand their minds and stretch their learning. The aim of every teacher should be to find the appropriate challenge for each student, but also understand that every student perceives stress in

different ways and therefore, every student has a different stress load capacity. The ability to recognize eustress versus distress can be difficult for students to gauge, particularly when their thermostat recognizes stress but doesn't have any adaptive abilities to turn off or on. To this end, schools and educational leaders can have a profound effect on students who perceive a challenge to be too great and too stressful. Absent a student's ability to manage stress, schools and teachers can serve as advocates to help overcome the challenges and teach self-care habits to reinforce and develop the adaptive abilities to manage stress. Schools and teachers can build structural supports that empower the stressed teenager to have a functioning thermostat. Without the school's recognition of its role in this process, challenges presented to students can become too stressful and the efforts to stretch the learning of our students may end up doing more harm than good.

### **Stress is Directly Observable**

National data demonstrates that teen stress is now outpacing adults (APA, 2014). Locally, as part of the Ci3T implementation in this district, students are screened three times a year using a tool that measures both internal and external behaviors that are associated with stress. The collected data is disaggregated by score and placed into tiered levels of low, moderate or high categories. Entry data from school counselors, anecdotal evidence from school mental health workers and recent personnel actions by the district reflect increased attention by the school district to focus on social and emotional problems. While the screening tool utilized by the district does identify students exhibiting behaviors associated with stress, the screener does not indicate the ways in which students define stress or subsequently manage the identified stress. Rather, the score is generated by teacher observation and interactions with the student. If the data increases or decreases over a period of time, it is not known whether a stressor appeared

or disappeared or whether the students' adaptive abilities increased or decreased in response to the stress experienced. With national and local data demonstrating that students continue to experience stress at all-time highs, the need for students to identify stress and develop adaptive abilities to manage stress remains.

### **Data About Stress Is Actionable**

Stress management is actionable, particularly when students recognize that stress is happening. Practicing self-care habits such as sleep, nutrition, exercise and mindfulness have been shown to reduce stress for teenagers yet few teenagers effectively practice these adaptive abilities and it is questionable how well school structures promote these positive self-care habits. This is not to say that schools haven't done anything. In many cases, schools have added additional counselors and mental health workers to assist students unable to manage stress and help them build adaptive abilities for stress management, however other duties are often assigned to counselors that prevent them from working directly on these issues with students. Additionally, as the rates of stress increase for students, it is not practical for schools to continuously add mental health personnel as the main response for stressed students. Not only is this a reactive strategy, but school finances and a dearth of qualified personnel are a reality. Rather than morphing into mental health facilities, stressed students would be better served by schools that promote self-care and provide the structures that allow students to develop the adaptive abilities to manage stress. By the time a stressor begins to manifest itself as a physical, mental or emotional problem, the student may already have engaged in behaviors that put the student's well-being at risk. Through research on student's perceptions on stress and how they manage stressful events, schools will have available information to design structures and programs that are more nurturing of a student's physical, mental and emotional needs.

This research study will aim to use student perceptions about stress and stress management to assist schools in making the structural changes that allow students to successfully navigate the stressors that accompany the teenage experience. The data will be provided to any school district that desires to examine student voices about stress and the identified methods these students utilize to manage stress.

### **Studying Stress Connects to a Broader Strategy of Improvement**

As a researcher and secondary educator, I understand the goal of education is to prepare students to be college and career ready with 21st century skills. This also reflects the same goals identified by the Kansas Department of Education. However, recognizing that “college and career ready” can be vaguely interpreted and represents more than just academic achievement, the state of Kansas also added some key student goals to its new accreditation module that includes an emphasis on social and emotional education (The Kansas Education Systems Accreditation, 2016). The state of Kansas recognizes students are needing more support than just academic structures and requires schools to demonstrate that this need is being met.

In addition to increasing graduation rates and preventing dropouts, schools must now demonstrate through data that the social and emotional needs of students are being met. The research into teenage stress can help communities look within their own schools at opportunities for stress management that can assist with the social and emotional development of students. Knowledge of how stress is interpreted and identifying adaptive abilities to manage stress will also provide schools with additional data to apply towards accreditation in the state of Kansas.

### **Data About Stress is Potentially High Leverage**

The negative effects of stress on a student’s mind, body and soul can have detrimental consequences for teenagers. Stress has been shown to reduce motivation and effort, reduce



attention and concentration, increase truancy, increase depression and has been associated with suicide. Any cause that can be linked to teen suicide needs to be researched thoroughly to prevent a tragedy of this magnitude at all costs. A shared culture of understanding about stress management and student self-care creates a climate where students can be challenged and stretched without a fear of students folding under a physical, mental or emotional strain.

Parents and teachers can inadvertently interpret stress-related behaviors as just a “phase” that all students go through and will eventually grow out of when they mature, but stress is more than just a teenager being angry and moody. Stress can have a major effect on the students’ mental health and ultimate well-being. According to a 2017 survey by the Centers for Disease Control and Prevention (CDCP), 17 percent of students in grades 9-12 report having seriously considered ending their own life in the past year, and 50 percent of these students reported having made an actual suicide attempt. This represents an increase from the previous decade. Every year, numerous teens end up in emergency rooms for self-inflicted injuries, and suicide has now become the second leading cause of death for this age group (CDCP, 2017). Knowing that suicide can be a byproduct of stress, examining the teen stress experience is a serious and immediate matter that cannot be ignored.

### **Research Questions**

This research aims to answer three research questions.

1. What stress do students report experiencing?
2. What are the adaptive abilities students identify and utilize to manage stress?
3. How do schools assist students with the students’ stress management?

### **Overview of Methodology**

The purpose of this quantitative and qualitative research study will be to examine how students perceive and experience stress and explore the adaptive abilities students use to manage stress. The research will use a mixed-methods design and constructivist approach to build a conceptual framework around the unique experiences of students to identify the impact of stress on the adaptive abilities of students. The conceptual framework will use the lens of a diathesis-stress model which holds the view that people react differently to stressors based on their adaptive abilities where the reaction to stress is based on the vulnerability and sensitivity to stress that is unique to each individual. This theory supports the research study into the ways in which adaptive abilities are learned and used to manage stress. Because people can learn to adapt to their environment through experience, students who are deficient with the adaptive abilities to manage stress can learn these strategies to adjust their own stress thermostat to better support their current and future well-being.

Quantitative data was used to measure the amount and types of stress students experience and the adaptive abilities they utilize to manage stress. The quantitative data provided the majority of information for this study and was supported with qualitative data that reported students' perceptions, experiences and strategies for managing stress through a phenomenological investigation using open-ended questions and a follow-up group interview. Ravitch and Carl (2016) state, "Research participants are and should be seen as experts of their own experiences with much to teach us about their lives and experiences" (p. 111). A constructivist approach will use the qualitative and quantitative data to explore the levels of successful student stress management through the examination of self-identified adaptive abilities.

Constructivism is an interpretive framework whereby individuals seek to understand their world and develop their own particular meanings that correspond to their experience. These meanings are not inherent to each individual, but are formed through interaction with others (Creswell, 2014). This type of interpretive framework is useful in research studies that include phenomenological investigations. In my phenomenological study of student perceptions, I will apply the framework of constructivism by asking group interview participants open-ended questions. This approach allows the participants to fully and freely describe their own experiences. My role will be to listen carefully to their views and apply the findings based on their background and experiences (Creswell, 2014). The interpretation of their experiences will reveal information regarding student perceptions of stress and adaptive abilities. Applying a constructivist framework will be a useful approach in gaining access to the unique perspectives that influence the experiences of students.

### **Positionality**

I desire to improve student efficacy by empowering students with the ability to recognize stress and apply adaptive abilities to manage their stress thermostat in order to successfully navigate the high school experience. I recognize that using a subtitle such as “fostering the adaptive abilities to survive and advance” may come across as a harsh characterization of the high school experience. As a secondary school administrator and former classroom teacher, I have an intense interest in seeing kids complete high school and graduate with the tools to be successful in their next endeavor. I am concerned about reports from colleges that students are not equipped with the adaptive abilities to manage stress at the post-secondary level. I am also concerned about the reported increased rates of anxiety, depression and suicide for a population that is still in its formative stages of development. With this perspective, secondary schools

should be able to equip students with the necessary resources and access to tools for successful management of stress both during and after they leave high school. I firmly believe that high school is a means to an end through which the school has an obligation to prepare students in a multitude of facets beyond just academic rigor. I have 22 years of education experience at the high school level. I have worked in both public and private schools, rural and urban, large and small settings. In all locations, I have interacted with students who report unmanageable levels of stress and need assistance to navigate their environment. For the past eleven years, I have held administrative roles as either a principal or as an assistant principal which provided a school-wide view of this problem.

I am a white male who did not have to want for much growing up in western Kansas. My father held a position which allowed my mother to stay home with me and my three siblings. I grew up in a homogeneous community, attended private school and only had one friend whose parents were divorced by the time we graduated high school. It was not until I entered my first student teaching experience that I began to understand how fortunate I was to have the amount of support I had growing up. I have learned that students “only know what they know” when they respond to stressors and each student has their own unique adaptive abilities to manage stress with some students have more success than others. I have been shaped through years of teaching experience to recognize that the classroom can be one the safest places for a student to enter into every day. There is tremendous influence teachers can have on the physical, social and emotional development of a student if they focus on the holistic needs of the students rather than solely on the academic content. I recently moved into a position within a school district that oversees alternative programming for students. A major reason for accepting this role is to help

find ways to ensure that any student who wants academic success but struggles with the stressors and strains that accompany a large traditional high school can have an alternative path to do so.

### **Researcher's Role**

As the researcher, I will be analyzing student perception surveys from a variety of secondary students and follow-up interview responses in the district where I am currently employed. I have had previous experience directing our school-wide MTSS (Multi-Tiered Systems of Support) program at one of our high schools and was also a lead member of our district student-support team. These experiences have provided me with intimate knowledge of the various school-wide interventions available to assist students who show signs of being at-risk or experiencing stress. Generally, these students are identified through quantitative data methods (screeners, course failures, absences, office referrals) and based on these results, students are then paired with a school intervention such as small group counseling. This method, while beneficial for identifying students in need and aligning interventions, is reactive rather than proactive. Because behaviors have to manifest before they are identified, the student's well-being may already have suffered prior to being identified as needing access to an intervention. As a former teacher and now administrator at the secondary level, the level of stress that students are under has me greatly concerned. I desire to be a better proactive leader that can strengthen students' adaptive abilities instead of waiting around for a student to break and have to pick up the broken pieces.

### **Assumptions**

In addition to wanting to examine adaptive abilities and stress management, I bring to the study assumptions that will focus my research on what role schools can play to assist students with stress management and self-care.

I assume that all students have stress and some students are able to manage it better than others, but I also believe that each student ultimately has a breaking point, where the total stress load exceeds all adaptive abilities the student has to manage their stress thermostat. While I believe all educators recognize every student has this breaking point, I assume that there are educators still in the profession who believe it is good to push students past this point. While pushing a student beyond their stress limit may allow the student to build resiliency, what is gained from students if we press them beyond their stress management load and we cannot get back? For me, this risk of losing students is too great. Changing this mindset involves structural changes throughout the school that in some cases, might be considered a radical shift from traditional forms of school organization (e.g., eliminating valedictorians and class rank.) If students are going to learn by failure, then schools have an obligation to provide students with the methods to build the adaptive abilities to handle these stressful situations so that failure is a means for learning rather than an end in itself. The work of soviet social constructivist Lee Vygotsky demonstrates the important role that educational professionals can play by providing experiences to students just outside of their comfort zone. Vygotsky developed the concept of the zone of proximal development (ZPD), which is "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem-solving under adult guidance, or in collaboration with more capable peers" (Vygotsky, 1978, p. 86). With appropriate help, students can complete tasks that they were previously incapable of completing on their own. This type of instructional scaffolding can work with students to develop adaptive abilities and manage stress by ensuring the social and emotional supports are in place to meet the students at their individual level of need.

I assume that schools are not designed to proactively recognize stressed students and respond accordingly. Teachers are pressured to focus on content rather than student well-being and the historical structures of schools often prevent schools from placing the stressed teenager as the center focus of programming. However, specifically to that point, the school district in this study is currently involved in a year-long study to examine the feasibility of starting each day one hour later than the current start time of 8 AM.

I assume that schools should be places students feel welcomed and safe and that the approach to education must be holistic. A school should design itself around the needs of the student ensuring the physiological, cognitive, social and emotional and philosophical needs are being met.

Finally, I assume the most important purpose for schools is to assist students with stress management through fostering an environment that allows them to develop the adaptive abilities to heal from the strain of stress. Recognizing that students enter each school building with all kinds of stories and backgrounds, a school should be a place where a student can be assured the environment is safe and that their well-being will be protected.

### **Organization of the Dissertation**

This research will be organized into five chapters. Chapter One is an introduction to the research study. Chapter Two consists of an introduction, review of the literature, conceptual frameworks, and chapter summary. More specifically, chapter two, through the review of existing literature, will outline the stressors that force students to utilize adaptive abilities to manage stress and explore the physical, social and emotional consequences when students cannot adapt to these stressors. Chapter Three will expand on the methodology for this research and contains the introduction, rationale, problem setting, research sample and data sources, data

collection methods, data analysis methods, trustworthiness, limitations and delimitations, and summary. Chapter Four covers the presentation of the data and will look to introduce examples of identified adapted abilities and explore the high school stress experience. Chapter Five will explain themes from the research data and provide recommendations for future research on student stress.



## CHAPTER TWO – LITURATURE REVIEW

### Introduction

This purpose of this study is to examine how students experience stress and to explore student adaptive abilities that support stress management. Also, the role of the school in assisting stress management will be explored. The initial thinking around this problem of practice stems from my two decades of experience at the secondary level working with students who report being stressed. I also have my own concerns about the adaptive abilities of students and the means through which they develop adaptive abilities and practice self-care. Some students appear to manage stress better than others which leads to a desire to understand what adaptive abilities these students have developed to manage stress and how this information can help other students navigate stressors. A closer look at the literature review will support the claim that high school students in general are exposed to a variety of stressors including academics, social acceptance, family stressors and world events and that the adaptive abilities required to combat these stressors are not well established nor are effective school structures in place to build adaptive abilities.

My research was focused around three questions:

1. What stress do students report experiencing?
2. What are the adaptive abilities students identify and utilize to manage stress?
3. How do schools assist students with the students' stress management?

For this literature review, I utilized various search engines including Google Scholar, Education Resources Information Centre (ERIC) and the University of Arkansas database using the keywords *students* and *stress*, paired with the words *teenagers*, *adolescents*, *high schools*, *sources*, *causes*, *effects*, and *support services* and also paired *support services* with terms such as

*self-care* and *school structures*. This search was repeated with specific stressors substituted for the general term stress such as *anxiety*, *depression*, *poverty* and *suicide*.

In my review of the literature, I focused on the primary causes of stress in teens, the effects that stress has on teenagers and the ways in which stress can be managed. Although the concept of stress and its harmful effects has been gaining more attention recently, literature specific to high school student stress and self-care is rather slim. This is surprising considering the large number of teenagers and the constant changes and challenges teens face every day that are stress producing. However, we do know there is extensive literature that links stress to many internalizing and externalizing problems for teenagers (Grant et al., 2003; Kushner, 2015; McMahon, Grant, Compas, Thurm, & Ey, 2003; Moksnes, Espnes, & Haugan, 2014; Sheidow, Henry, Tolan, & Strachan, 2014) which implies that stress remains a major issue for teenagers. Statistical examples of internalizing and externalizing problems for teenagers include: 14.3% of adolescents have a diagnosed mood disorder (i.e., depression) 31.9% have an anxiety disorder and nearly 60% of adolescents remaining untreated when faced with these symptoms (Behavioral Health Barometer: United States, 2013). While the literature on the perceptions of teenage stress and adaptive abilities is emergent, there is ample research into the causes of teen stress and the relationship with mental and physical health problems. This work however is often limited because the studies rely solely on quantitative methods that only identify the sources of stress and the impact (Seiffge-Krenke, 2000). Quantitative methods are a useful way to determine causes of stress, but for the research into this problem of practice, qualitative efforts are needed to add unique perspectives on how teenagers themselves discuss and prioritize issues related to stress and the adaptive abilities they use to manage stress. The research will seek to

conceptualize the stress experience and examine why certain events exceed the adaptive abilities of students.

### **Focus on Teenagers**

While all humans experience stress, the focus of this problem of practice is on teenagers at the secondary level. The research is narrowed to this population for two reasons. One, my entire professional career has been at the secondary level and this is the age group I am most familiar with and where I have directly observed the effects of unmanaged stress. Two, the latter teenage years are where young people begin to solidify the mechanisms that will define them as adults. The way students conceptualize stress is likely to vary with age groups so focusing on the perspective of one developmental period (secondary teenagers) allows for the problem of practice to be more manageable. As students matriculate through high school, this is the age they become aware of their emotions and begin to develop the personal philosophies and coping skills that will assist them in managing stress (Saarni, 1999). Even though students will face many challenges as they transition into adulthood, research into positive youth development identifies factors that will buffer against negative outcomes and promote well-being (Lerner et al. 2005). During this “window of opportunity,” the physical, mental, emotional, and philosophical domains of students are pliable enough for cultivating adaptive abilities and positive character traits (Roeser and Pinela 2014). As these students continue to age, they become more aware of inner thoughts and emotions (Weil et al. 2013).

### **Student Voice**

While much can be learned about stress through objective measures, a key component for this problem of practice will be to collect student voices on stress and stress management. Listening to student voice can provide a better understanding of student experiences (Appleton et

al. 2006) and student voice can be particularly useful for measuring emotional and social engagement which may not be directly observable by teachers or through other methods (Fredericks & McColskey 2012). Since each student has a unique view of their school experience, schools can gain tremendous insight on how schools can create a more supportive environment for stress management by listening to what their students have to say.

### **Identifying Stress and Sources**

Throughout much of human history, stress response has been programmed into our DNA. When stress occurs to the body, physiological responses kick in that prepare the body to deal with stress. Chemicals are released, the heart rate increases and the senses become keener as the body prepares to “fight-or-flight” and preserve the body’s survival. The fight-or-flight response was first described in the late 1920s by American physiologist Walter Cannon who recognized that a chain of rapidly occurring reactions inside the body helped cause the body's available resources to deal with threatening circumstances through either fighting back or running away (Cannon, 1929). Stress is unavoidable, but a modern understanding of stress and its symptoms allows for stress to become manageable. Following the work of Cannon, early identification of stress continued in the 1920s as Vienna-born endocrinologist Hans Selye identified the conditions of stress and began to study their effect. Today, Cannon’s fight-or-flight response is recognized as part of the first stage of Selye's familiar General Adaptation Syndrome (GAS), developed in 1936, which is a theory describing the stress response. The syndrome divides the total stress response into three phases: the alarm reaction, the resistance stage and the exhaustion stage. When individuals are exposed to a stressor, they experience distress (alarm), then attempt to return to normalcy by resisting the change, but eventually fall victim to exhaustion through constantly countering the stressor (Selye, 1936.)

Throughout the twentieth century, other scientists began to study stress and understand its effect on people. However, despite a century worth of research on stress, information on teenage stress appears to be nascent and not widely studied. Primary focus has been on adult stress but there is emerging research on teenage issues related to anxiety, depression and suicide as well as other mental and emotional problems that are byproducts of unmanaged stress. With recent national data on stress identifying teenagers as the most stressed demographic in the nation, it seems appropriate to begin taking a deeper look into why this phenomenon is taking place. According to the survey from the APA, teenagers have identified school as being the leading cause of stress (2014), which probably comes as no surprise given the amount of time teenagers spend in school. Mandatory attendance requirements ensure that teenagers will experience school of some kind so the words *teenagers* and *school* can become somewhat synonymous. Students in high school are going through a phase of evolving from a child to an adult and during this time period, all students experience stress (Sulaiman, Hassan, Sapien, and Abdullah, 2009). Working from the definition of stress as a strain (mental, physical, emotional) that exceeds the adaptive abilities of an individual and threatens their well-being, the following section will identify the main sources of stress for teenagers.

### **Main Sources of Stress for High School Students**

As students matriculate through school into adulthood, there will be many experiences student face that will cause stress. The adaptive abilities of students to recognize and manage these stressful events will play a major role in the social, emotional and physiological development and overall well-being of the student. As mentioned, school is the number one source of stress and there are many reasons why school ranks so high for students.

## Academics

“The amount of school work” or “school” in general is a common response when students are asked about stress. Data from a national survey of high school students further support a link between homework and stress. This research found that 9 in 10 students (89%) report feeling stressed about doing homework, and one third of students (34%) feel frequently stressed about homework (Markow et al. 2007). Additional studies have found that more than 70 percent of students said they were “often or always stressed over schoolwork,” with 56 percent listing homework as a primary stressor and only one percent of the students said that homework was not a stressor (Galloway, Conner and Pope, 2013). Students were also asked whether they experienced any physical symptoms of stress, such as headaches, tiredness, sleep loss, weight fluctuations, and stomach problems and more than 80 percent of students reported having at least one of these stress-related symptoms in the past month, with nearly half (44 percent) saying they had experienced three or more physical symptoms in a month (Galloway et al., 2013). Parents have also identified the stress that homework creates as nearly 40% of parents report that their student experienced stress at school and about one in four parents (24%) identified homework as the cause of their child’s stress (NPR, 2013). Additionally, the schoolwork load curtails activities that may reduce stress which works counterproductive to stress management. The researchers found that spending too much time on homework meant that students were not meeting their developmental needs or cultivating other critical life skills. Students were more likely to forgo activities, stop seeing friends or family, and not participate in hobbies (Galloway et al., 2013). Many students felt forced or obligated to choose homework over developing other talents or skills (Galloway et al., 2013).

## **Social**

In addition to schoolwork, another area for students that causes stress is peer relationships. The teenage years are a critical time for social development as adolescence is associated with enhanced awareness of how others judge and enhanced desire for social acceptance and friendship (O'Brien & Bierman, 1988). Pressure to be in a romantic relationship picks up in high school and causes stress for students, especially for those questioning their sexuality (Feinstein & Dyar, 2017). Isolationism and peer rejection can be problematic as peer rejection is a notable source of stress during adolescence (Platt, Kadosh & Lau, 2013). In addition, research reveals that socially isolated children tend to have lower subsequent educational achievement, less social class advancement, and are more likely to experience psychological stress in adulthood (Lacey, Kumari & Bartley, 2014).

## **Home**

Compounding the academic and social stress is the stress that students experience from home. When teens experienced family stress at home they have more problems at school with attendance and learning the next day (Flook, 2008). Stress at home can take on many forms that are largely outside of the students' control. The dichotomy of parents placing demands on their children to excel and get into a good college happening at the same time teens are trying to establish independence causes stress. Academic stress is found to be positively correlated with parental pressure and the development of psychiatric problems (Deb, Strodl & Sun, 2017). Continuing to earn good grades and maintain high GPAs to get into college becomes increasingly difficult as classes become more challenging. Also, family events such as divorce or financial insecurity bring additional stress that affect students at school.

## **World**

Academic, social and family pressure combined with a relentless media culture and school shootings that constantly remind students how dangerous the world is means that young people may be more stressed than ever before. The school shooting at Columbine High School in 1999 had a profound effect on me well before any current high school students were even born. The idea of a high school being a target had never crossed my mind until that event, but even in the years after, we never participated in any active shooter drills as frequently as we do now. Today, the percentage of public schools running active shooter drills is nearly 95 percent (National Center for Education Statistics, 2017) and those numbers were collected prior to a recent deadly shooting at Stoneman Douglas High School in Florida in the summer of 2018. New research identifies that while shooter training increases preparedness, the trainings also have brought an increase in fear and anxiety in the lives of students whose stress levels are already high (Peterson, Sackrison & Polland, 2015). The authors of this same study point out a sad reality about how we are meeting the needs of our stressed students right now when they stated, “every dollar spent on active shooter training is a dollar not spent on school counselors.”

### **Teenager Stress Responses**

While establishing students deal with stress on a day-to-day basis, it should be noted that not all stress is bad and that stress can be positive and even beneficial. In fact, there are many who believe that humans need some degree of stress to stay healthy. Moderate amounts of stress, or ‘good stress’ have been found to provide energy to handle tasks, increase motivation, and meet challenges (Selye, 1974). When stress serves as a positive motivation, it can be beneficial. The problem of practice for this study however concerns the total stress load that becomes unmanageable and causes physical, social and emotional problems. The stress becomes



unmanageable because students do not have the adaptive abilities nor the structural supports to learn and develop these adaptive abilities to manage their stress thermostat. As such, the unmanaged stress can have profound effects on students' current and future well-beings.

### **Physical**

When stress occurs in the body, there are physical responses that can occur. Known physical responses are familiar: headaches, upset stomachs, insomnia, sweaty hands and dry mouth. The real dangers of stress lie in the research pointing to effects that may be long term damaging and prevent students from properly dealing with stress onset in the future. Teenagers, who are still physically and mentally developing during the high school years, not only face immediate strain but repeated stress can affect their neurological adaptive abilities (Romero, 2016). This inability to develop proper adaptive abilities to recognize stress and practice self-care causes the body to become hypersensitive to stress which can explain the increases in other stress-related dysfunctions (anxiety, depression, drug abuse, suicide) beyond just physical discomfort (Romeo, 2013). Additionally, the stress may also alter the genetic makeup of students as stress and adversity may influence disease risk and mortality in part by influencing the expression of genes (Slavich, 2018). The research is important to demonstrate that more is at stake when teenagers are exposed to stress than just getting sweaty palms. By understanding that actual physiological damage can occur, it is critical that students understand how stress affects their well-being, as well as what they can do to mitigate these effects and manage their stress thermostats.

### **Mental**

Teen stress is a normal part of teenage life as they participate in school and engage in various relationships, but sometimes pressure to excel or outside influences can cause teenagers

to experience too much stress, to the point of serious mental health problems. Stressful life events have a substantial causal relationship with the onset of episodes of major depression (Kendler, Karkowski, & Prescott, 1999) and recent research consistently shows daily stressors play a significant a role in affecting overall mental health (Schonfeld et al., 2016). Poor mental health for secondary students can have immediate and long-lasting effects.

### **Emotional**

Stress can also cause students to be unhappy, feel helpless (Verma & Gera, 2014) and as previously identified, feel depressed. Stressed teens may also seem agitated, anxious and irritable. Failure to manage stress has also been linked to causing angrier teenagers. Students will get angry by simple things, such as being asked to take out a piece of paper for an assignment in class or to move seats for a class activity. As stress increases, the tolerance for being frustrated decreases leading to feelings of irritability and anger, which increases the likelihood for angry outbursts or social withdrawal (Hendricks, Bore, Aslinia and Morriss, 2013). Stress has been linked to students who are prone to bullying others by directing anger at other students (Konishi & Hymel, 2009). Also, students who are stressed may be resistant to following school guidelines and respectfully engaging with instructors. They may also exhibit disrespectful behavior and their focus on anger may cause overall work to suffer. However, the better young people are at regulating their emotions and behaviors, the more likely they are to achieve academically (Duckworth & Seligman, 2005); and evidence even suggests that the adaptive ability of self-regulation may actually be more predictive of academic success than intelligence (Duckworth, Tsukayama, & May, 2010).

While research points to the severe effects that stress can have on a student, a majority of teens reported that their stress levels had a slight or no impact on their body or physical health

(54 percent of teens compared to 39 percent of adults) or their mental health (52 percent of teens compared to 43 percent of adults) (APA, 2014). These responses demonstrate an idea that students may not recognize the effect that stress can have on their well-being and are missing an important opportunity to practice self-care and build adaptive abilities to manage stress for future conditions. Even worse, students might be just ignoring the stress altogether and trying to suppress it, which will eventually cause additional harm. Stress suppression has been shown to have negative consequences for psychological, social, and both short- and long-term physiological functioning (Gross and Levenson, 1993; Petrie et al., 1998; Richards and Gross, 1999; Srivastava et al., 2009). Beyond mental, emotional and physiological symptoms that accompany stress, students may also not be aware of additional consequences such as academic failure and truancy (Child Trends, 2015) which are also both precursors to dropping out of school.

### **Stress Mitigation**

Even though stress has shown to increase individuals' risk for a variety of physical, mental and emotional illnesses, all is not lost. People do still hold the power to reduce these effects and improve their personal and collective well-being (Slavich, 2018). Nevertheless, nearly half of teens (42 percent) reported they were not doing enough or were not sure if they were doing enough to manage their stress, and more than one in ten (13 percent) said they never set aside time to manage stress (APA, 2014). Research identifies effective methods for stress reduction, but the ability of students to follow through on stress reduction methods appears to fall short.

## Sleep

Sleep is a powerful stress reducer. Following a regular sleep routine calms and restores the body, improves concentration, regulates mood, and sharpens judgment and decision-making. Lack of sleep, on the other hand, reduces energy and diminishes mental clarity. Sleep deprivation refers to a lack of the necessary amount of sleep and it can have a negative impact on physical, mental, and social health (Sadeh, 2007; Smaldone, Honig, & Byrne, 2007). Lack of sleep renders a person more emotionally reactive, more impulsive, more sensitive to negative stimuli and can give rise to stress in any number of ways, including difficulty in relationships (Goldstein & Walker, 2014). According to the Anxiety and Depression Association of America, 70 percent of those who report persistent stress have trouble sleeping and sleep loss can increase subsequent stress levels (Vgontzas et al, 1998). Sleep loss also lowers the threshold at which a person experiences an event as stressful (Minkel et al, 2012) meaning more stress is likely when students are sleep deprived.

Poor sleep makes stress management more difficult and also negatively impacts concentration, learning, listening, memory and problem-solving. For optimal performance, students need between 9 and 9 ½ hours of sleep (Mindell & Owens, 2003) but on average, teens reported sleeping far less than the recommended amount with an average of only 7.4 hours on school nights and 8.1 hours on non-school nights (APA, 2014). Nearly one in five teens (18 percent) said that when they do not get enough sleep, they are more stressed and 36 percent of teens reported feeling even more tired because of stress from earlier in the school year still having an effect (APA, 2014).

## **Nutrition**

The food a person consumes as part of their daily lifestyle can be utilized as a tool to overcome or to reduce the effect of stress on the body. Unhealthy eating patterns will only result in an increased level in stress, followed by further problems in the future if not resolved (Singh, 2016). A healthy diet can help counter the impact of stress by shoring up the immune system (Singh, 2016). Practicing healthy eating habits also helps to reduce stress and allows the body to perform at its best. Eating every few hours provides the energy needed to keep the body fueled properly (Calcagno, 2015). Teens are notoriously poor eaters and, in many cases, do not even bother to eat when stressed. 23% of teens report skipping a meal due to stress, and nearly one in four of those students said they do this weekly and, in some cases, daily (APA, 2014).

## **Exercise**

Exercise and stress research has typically focused on aerobic exercise and there have been consistent findings that people report feeling calmer after a 20 to 30-minute bout of aerobic exercise (Jackson, 2013). However, one in five teens (20 percent) reported exercising less than once a week or not at all (APA, 2014). Part of the lack of exercise occurs because students either lack the time to exercise or do not make it a priority. Teens who reported high stress during the past school year also said they spend an average of 3.2 hours online a day, compared with only two hours among those reporting low stress levels during the past school year (APA, 2014). According to the most recent Youth Risk Behavior Surveillance System (YRBSS, 2017) report, high school students are spending more recreational time on computers. The 2017 data reveal that among U.S. high school students, 43% spent three or more hours a day using a computer, playing video games or using social media for fun, up from 41.7% in 2013, and 31.1% in 2011. The increasingly sedentary lifestyles of teenagers does not appear to be leading to a healthier

frame of mind and body for managing stress. Only 26.1% of students report being physically active for at least 60 minutes per day and slightly fewer than half, 48.3%, do not attend a physical education class at least once a week (YRBSS, 2018).

### **Self-Care**

“Self-care is not selfish. You cannot serve from an empty vessel.” – Eleanor Brown

High school students are not widely acknowledged for practicing self-care to manage stress. The scientific research on stress and biology has shown that the biology of the brain changes when stress is managed (Maier, 1985) which not only lessens the effect of the stressor but can help to immunize students against future uncontrolled stressors. Knowing that stress can be managed and that adaptive self-care abilities can be acquired does not seem to be widely practiced since few teens indicate their stress was on the decline, with only 16 percent reporting that their stress decreased from the previous year. Sadly, nearly twice as many said their stress increased in the past year (31 percent) or believed their stress level will increase in the coming years (34 percent) (APA, 2014). With impending knowledge of increased stress on the horizon, it would be beneficial for students to understand and identify self-care habits that will assist with stress management.

The practice of self-care can be described as a holistic approach for a healthy lifestyle (Sanchez-Reilly et al., 2013) or as The Mount Sinai Adolescent Health Center, a free health care clinic that serves over 10,000 teenagers a year in New York describes it, self-care is defined as the intentional engagement of practices and activities that reduce stress such as eating well, getting enough sleep, exercise and practicing mindfulness (2018). In either case, self-care in its simplest terms means to take care of one's self in a healthy manner.

Teenagers who have developed inner self-care adaptive abilities, such as resiliency, appreciation for the good things in life, and a desire to accept new challenges are likely to experience less stress (Seligman & Csikszentmihalyi, 2014). However, all students arrive at schools with different levels of ability to handle stress meaning some stress management thermostats work better than others. Family structure and background plays a significant role in the level of adaptive abilities students develop before they enter school (Sheidow et al., 2014). For example, consider the effects of poverty on a student's ability to manage stress. Ross Mackay, a researcher who focuses on the way in which families develop resilience as a family unit, identifies the adverse effects that poverty has on families and notes particularly the weakened adaptive abilities of children. Poverty has been linked to a range of adverse outcomes for children, including reduced cognitive ability, poor academic achievement, poor mental health and conduct disorders. Mackay identifies two theories for why this linkage between poverty and student outcomes exists. One, the stress of diminished economic circumstances affects parental mental health, which reduces parents' ability to transfer adaptive abilities to their children. Two, Mackay points to the concept of social capital where well-off parents are more likely to have a wider network of friends and associates with influence than poor parents, which also decreases their children's relative chances of success (Mackay, 2003). Even Selye himself acknowledged that stress impacts each individual differently (Selye, 1950). What one student considers to be an extremely stressful situation, another student may only consider it a mild irritant.

### **Adaptive Abilities**

The use of the term *adaptive abilities* in this study refers to the inner and external resources a person utilizes to protect against and diminish experienced stress. The concept emerges from Stage 2 of Selye's General Adaptation Syndrome that proposed the body adapts

through three phases when confronted with stress: Stage 1 is the initial alarm stage followed by Stage 2 which Selye called the resistance phase. It is during Stage 2 the body manages stress through adaptation and if adaptation is successful then Stage 3 exhaustion can be avoided. Taking the word adaptive and pairing it with ability expresses an idea of a person having control over a stressful situation as opposed to the stress controlling the person. Because stress can be caused by situations outside of a student's control, the concept of *adaptive abilities* promotes the idea that a student has some control how their body manages stress. Much how like a thermostat senses the temperature of a physical system and performs actions to reduce a temperature, so too can a student's internal stress thermostat perform actions to manage stress. Notable is that a students' ability to develop adaptive responses to stress reduces the impact of stress and increases "the possibility to experience positive emotional states, and subsequently reducing the chance of developing psychopathological or behavioral problems" (Bluth & Eisenlohr-Moul, 2017). Therefore, even though students with a more stable (or economically advantaged) home-life appear to be better off, it does not mean that poorer students don't have the capacity to develop adaptive abilities and practice self-care. If a teenager has developed and utilized adaptive abilities such as, "the ability to bounce back from difficulties, gratitude for the positive aspects of life, and a sense of mastery and desire to take on new challenges," the teenager is likely to experience less stress, because even though stress is unavoidable, adaptive abilities are not "merely the absence of negative symptoms but also the presence of positive ones" (Seligman & Csikszentmihalyi, 2014).

### **The Role of the School**

An advantageous way for students to learn self-care habits is to model the healthy behaviors of the adults in their lives, much like Vygotsky proposed through his research on zones



of proximal development. Fortunately for stressed students (who spend a large part of time in schools), schools are full of adults to model healthy behaviors after and learn effective adaptive abilities. Relationships are important as student perceptions of teachers' availability to assist students with navigating difficult emotions in the classroom corresponds to students improved mental health over time and to increases in academic motivation (Roeser, Eccles, & Sameroff, 2000). Unfortunately, the increased pressures associated with teaching appear to be affecting the very teachers that students look towards to assist with stress management. A recent study, conducted by researchers at the University of Missouri and published in the *Journal of Positive Behavior Interventions*, measured the levels of stress, burnout, and coping abilities of 121 teachers and found that almost all of the teachers—93 percent—reported high stress levels, while only 7 percent were categorized as "well-adjusted." (Herman, Hickmon-Rosa & Reinke, 2017). These numbers compound the problem for teenagers trying to practice self-care in high school through the theory of scaffolding and learning through proximity. If teachers cannot manage their own stress thermostat to model and practice self-care, how can teenagers be expected to manage theirs?

Finding research on the amount of self-care practiced by high school students is difficult to locate. The research indicates students are stressed and there are numerous examples of healthy habits that students should be practicing but not much research exists about whether or not students are identifying stress and utilizing any adaptive abilities to manage their stress. Reasons for why students do not practice healthy self-care abilities are varied. Perhaps it is because students do not recognize that they are stressed or are trying to suppress it. Maybe students consider stress to be just a natural rite of passage through high school as part of the "cost of doing business." Maybe the adults in students' lives do not see stress as something that

needs to be addressed since some researchers view stress as nothing more than a convenient excuse to get out of doing something they don't want to do. As an example, in an article on teen stress by Sharon Jayson, the author quotes two psychologists who question whether students are reporting to be stressed as an excuse to avoid having to do something they just don't want to do (Jayson, 2014). Research also shows the brain development of teens is different than adults as actions are guided more by the reactive amygdala and less by the logical frontal cortex which is why stress causes teens to have more difficulty in decision making and engage in riskier and destructive practices (Galván & McGlennen, 2011). Regardless of the reason used for why students do not practice adaptive self-care methods to manage stress, the hard numbers express a reality, namely - high schools students report higher stress levels than at any other time previously surveyed and as a result kids are more anxious and depressed than they've ever been. Even the psychologists that claim stress as an excuse admit to having difficulty ignoring these same hard facts (Jayson, 2014).

One final consideration for the lack of information on adaptive self-care abilities practiced by teenagers could be the expectation on high school programming to provide stress management supports instead of students having to figure it out for themselves. Common ways schools have addressed the rise in stress among students is through the expansion of existing school wide systems of support to include more interventions and also by hiring more specialists, counselors, social workers and school psychologists. The school district used for this study added a full-time social worker to each high school and two full-time interventionists split between the junior highs just this year. Nationally, state legislatures have also gotten involved in the discussion. Nebraska, as an example worked on a bill in the spring of 2018 to create a Collaborative School Behavioral and Mental Health Program, which would put a social worker

in each of the state's 17 educational service units (LB998, 2018) to support mental health concerns throughout the state. However, simply adding more mental health workers to address stress related problems may not prove to be a viable solution in the long run as the number of candidates for these positions is on the decline. Although school psychologists are specially trained for special education, more and more schools are relying on them to assist with mental health needs and stress levels of students. Currently, the national average is one school psychologist to 1,700 students, with some districts having as few as one per 6,000 students, according to The National Association of School Psychologists (NASP; 2010) which recommends a ratio of one school psychologist for every 500 to 700 students. In Kansas, during the first semester of the 2016–2017 school year, a survey of school districts and special education agencies found there to be 38.5 full-time- equivalent school psychologist open positions which only included the 30 of the 60 who responded to the questionnaire (Kansas Association of School Psychologists, 2017). The number of statewide openings is likely much higher. With the shortage of readily available mental health workers to provide social and emotional support to students, schools will need to look at structural improvements to support students with their development of adaptive abilities for stress management. There may come a time when a student will not have the luxury to leave class and meet with a mental health worker at school because none are available. Without these personnel, schools will have to rely on school structures to assist students with adapting to stress.

### **Schools Making Structural Changes**

It is vital for educators to recognize the significant impact stress has on teens and work to create a supportive educational environment. To address the stressed teenager, schools have responded by increasing the availability of support resources including social workers, mental

health workers and counselors. By receiving this type of assistance, studies show that children can cope more easily with high levels of stress and that social support is strongly associated with feelings of mastery and the ability to deal with stressful situations, as well as with increased quality of life (Martin, Carlson & Buskist, 2009). But just exposing students to coping strategies while leaving structural problems intact would not get at the problem of practice of stressed teens managing their thermostat through the use of adaptive abilities. Also, the numbers show that the people needed to fill these vital roles are not readily available. A popular structural change that many schools have attempted is the introduction of a Social and Emotional Learning (SEL) curriculum much like this district did as part of its Ci3T implementation. Although a popular strategy, adding SEL curriculum as a panacea is not without its many challenges. Districts may encounter challenges to adopting formal SEL programs such as financial constraints, time restrictions or a prioritized focus on academic curricula mandated by external accountability systems (see Collaborative for Academic, Social, and Emotional Learning, 2003). All of which are problems encountered by this district during its Ci3T implementation.

As such, schools need to work collaboratively to change the structures themselves so that students can develop adaptive abilities and practice self-care. Students need to be made aware of self-care options and be given the opportunity to put those self-care practices into place. There are existing case studies of schools that have taken these challenges head on and have built self-care opportunities into their schools. Two researchers from the University of North Carolina studied a program for secondary students to determine whether teaching them mindfulness and self-compassion could help improve their experience with stress. The program included sessions where teens learned the basics of mindfulness and self-compassion. Results determined these techniques appeared to help teens reduce their stress, and the positive change seemed to last for

weeks after the program ended as participants reported lower perceived stress immediately following the program and at a six-week follow-up (Bluth, & Eisenlohr-Moul, 2017).

In December of 2016, *The Seattle Times* profiled Washington Roosevelt High School in Seattle, WA, an academically competitive school, with many students expecting to attend a post-secondary institution. In 2015, the stress hit a level that began to impact the entire school. Teachers recalled walking more stressed students down to student services than at any other time during their careers. In a two-year period, two students committed suicide, which hit the school and the community hard. Rather than just hire more mental health workers (which they did) the school also redesigned the daily schedule to shorten each period and build in a 20 minute “free period” each day for students to use as they pleased. However, on Thursdays, instead of free time, Roosevelt became the first school in Seattle to add a yearlong program with weekly mindfulness lessons built into the daily schedule. Only a few months after introducing the free periods and mindfulness lessons, students and teachers reported a calmer tone in their classrooms and hallways.

In a *New York Times* article from April 8, 2017, Kyle Spencer profiled a school that was changing its traditional structures to handle student stress. At Lexington High School in Massachusetts, the staff were deeply concerned by the high levels of stress reported by their students. Part of the stress was created by the proximity to Ivy League schools and the academic pressures of acceptance. It all came to a head when a student committed suicide in 2015. Rather than just put more mental health workers in place (which they did) they also addressed structural problems and established new rules in the high school that challenged the traditional rules of high school organizations. Limits were placed on homework, competition was deemphasized and decreased and class rankings were eliminated along with valedictorians. The community got

involved by supporting regular workshops on teen anxiety and hosting college forums designed to convince parents that their children can succeed in life even if they do not attend an Ivy League school.

These examples represent approaches schools can take to address the growing problem of stress in schools. Stress is going to happen at some point in a student's life and will most definitely happen more than once. As unavoidable as stress can sometimes be, how students react to it can be controllable with proper self-care techniques and supportive structures. One can either let the body suffer from the effects of stress, or we can choose to do something about it.

### **Conceptual Framework**

This purpose of this study is to examine how students experience stress and explore student self-care habits that support stress management. The study also examines the important role that school structures have in helping students with stress management. Quantitative data on the causes of stress is abundant in the research field. There is also some available research into the causes and effects of stress for teenagers as well as research on programs initiated in schools to help stressed teenagers. However, the qualitative aspects of how students conceptualize stress and the adaptive abilities they develop to manage stress is where the research does not appear to be as vast. Links between stressors and psychopathology have been established through the literature and methods for reducing stress have also been identified. While there is good research on methods to reduce stress, the research lacks the student voice in describing the impact of stress and identifying the adaptive abilities they use to manage stress. For this problem of practice, the research will seek to understand what adaptive abilities students have to manage stress and how they were developed. To do this, the research will use a constructivist approach

to expand beyond the main causes of stress and use the unique perspectives of students to identify useful adaptive abilities.

The conceptual framework that guides and informs this study operates through a lens that people can learn from experience and develop adaptive abilities to preserve their well-being. The diathesis-stress model and more specifically, a vulnerability-stress model as well as research into the topic help to frame this position. All youth are exposed to stress throughout their developmental years, but not all youth who are exposed to stressors develop problems in adolescence. The diathesis-stress model is often used in the medical field and purports that the development of these problems are determined by the interaction of psychological traits combined with the exposure to stressors. People are predisposed to specific types and timing of stressors that activate a vulnerability (the diathesis) resulting in the development of depression or anxiety. As such, some individuals are more vulnerable than others to develop a disorder once stress has been introduced (Monroe and Simons, 1991), or to state it another way, a person may be more at risk for developing a stress related response than others. However, while the presence of a risk factor increases the possibility of acquiring a stress-related disorder, it does not specifically say what causes the disorder. The vulnerability-stress model looks at how stress affects the individual and the steps that people can take to reduce their vulnerability to stress. Vulnerability is unique to each individual which means although there is a resistance to change, change is not impossible. In fact, “vulnerability levels may fluctuate as a function of new learning experiences” (Ingram & Luxton, 2005). Understanding how the lack of adaptive abilities increases vulnerability could be a key to helping students become more resilient when faced with stressful situations. It is impossible for a student to live a life that is free of stress.

However, there are many ways that a student can learn how to manage stress more effectively and to protect themselves from the long-term effects of stress.

The existing literature demonstrates the physical, social and emotional impact on the biology of a teenager from stress. It also demonstrates how adaptive abilities (or the lack thereof) connect to student well-being. By using the damaging effect that stress has on teenagers, I used the literature to examine the main causes of stress and attempted to identify the ways that students use adaptive abilities and practice self-care to minimize and manage stress. Both students and the schools need to play a role in this. The literature was slim for identifying best practices students are aware of and use in school but there are several positive reports from schools that use some structural supports to promote the development of adaptive abilities as a part of the school routine.

Combining the knowledge that stress causes physical, mental and emotional problems with the research showing high school students are stressed creates the framework visualized in Figure 1 that demonstrates how adaptive abilities and school structures can support the stressed student.



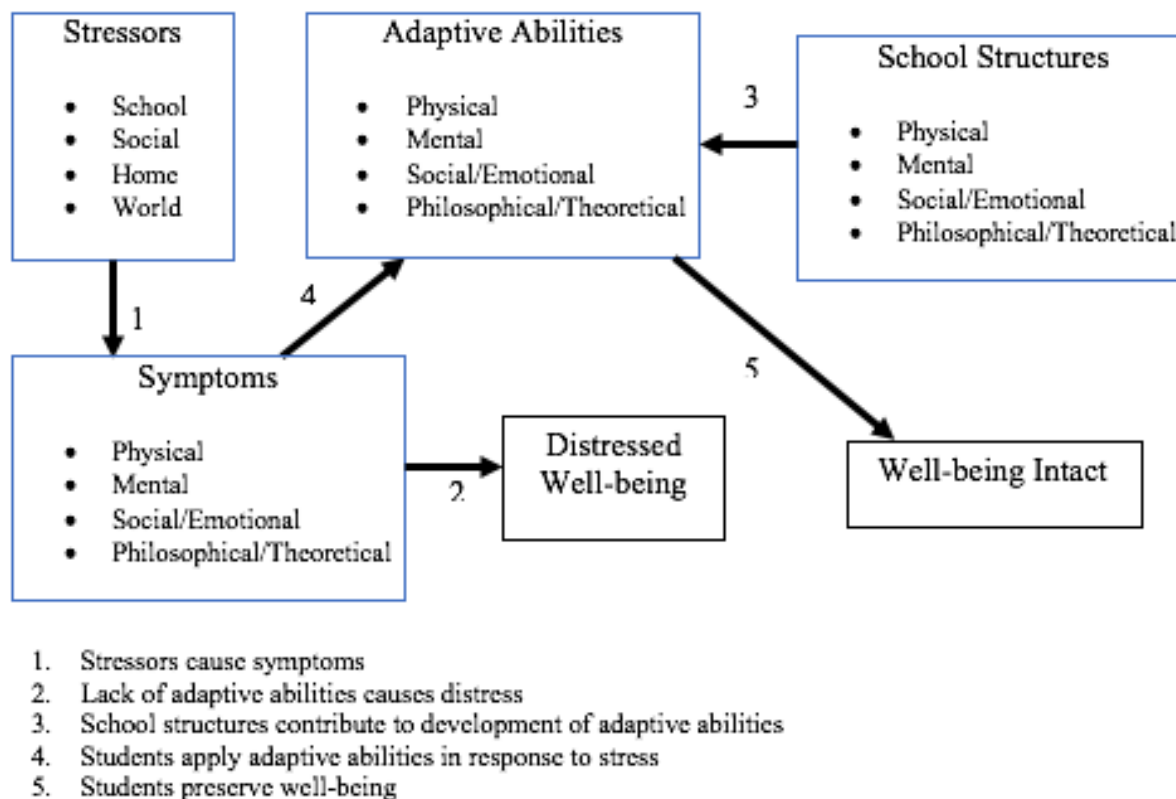


Figure 1: Conceptual Framework for the Problem of Practice of Stress in Secondary Schools with and without Adaptive Abilities

Unmanaged stress has a negative effect on school engagement and personal well-being. However, stress can be mitigated through adaptive abilities that support healthy self-care practices despite a student's background or predisposition towards stress. Schools can provide environments and structures that promote the development of these adaptive abilities. As Figure 1 of this conceptual framework demonstrates, students with effective adaptive abilities and supporting school structures are better equipped to manage stress and promote a healthier well-being than those who go without.

### Chapter Summary

The literature review focused on the harmful effects that stress can have on teenagers. The research, combined with my own experiences in secondary schools presents the problem of practice concerning the level of stress that teenagers are experiencing in schools. Chapter Two

attempted to show the dangers of unmanaged stress and the literature contributed self-care methods that can assist students in developing adaptive abilities to manage stress. The research from Chapter Two will be helpful in demonstrating that many students, including the ones to be examined in this study are not aware of the dangers of stress, nor are they aware of healthy self-care techniques that they can use to build adaptive abilities for stress management. Their experiences will also shed light on the role that school structures can play in helping students control their stress.

Chapter Three focuses on the research design and methodology used for this problem of practice. Quantitative methods will be used to gather multiple perspectives from students and a subsequent follow-up interview will provide qualitative data contributing to the unique perspectives of students gathered for this study.

## **CHAPTER THREE – INQUIRY METHODS**

### **Introduction**

This purpose of this study is to examine how students experience stress and explore the development of adaptive abilities that support stress management. Additionally, the research looks into structural supports within schools that promote the development and utilization of adaptive abilities. Helping students identify stressors and promoting the adaptive abilities to manage stress will help students stay more engaged in high school and less-likely to participate in at-risk behaviors that endanger graduation. Having worked in secondary environments as both a classroom teacher and administrator for my professional career, I have observed the effects that unmanaged stress can have on students and have noticed the lack of attention given to self-care methods for students in secondary settings. For that reason and in order to understand the phenomenon of teenage stress at the secondary level, the research study addresses three questions:

1. What stress do students report experiencing?
2. What are the adaptive abilities students identify and utilize to manage stress?
3. How do schools assist students with the students' stress management?

This chapter will begin with a description of the research study's method of inquiry and then include discussions on the rationale, problem setting, research sample and data sources, data collection methods, data analysis, identification of ethical issues and safeguards, trustworthiness, limitations and delimitations and a summary of the chapter. Working through this problem of practice will inform the development of improved practice for both students and schools to promote adaptive abilities to manage stress.

### **Rationale**

The framework for this research study utilized a constructivist view with a mixed methods approach that used both qualitative and quantitative data. This study was framed in the constructivist theory based on the need to extract perceptions and experiences from students about stress and identify adaptive abilities used to manage stress. According to Creswell (2014), a constructivist view holds the position that students will seek to understand the world in which they live and interpret meaning through their own unique experiences. “The goal of the research is to rely as much as possible on the participants’ views of the situation being studied (p.37).” In the case of student stress, the participants views of how stress affects them and the methods they use to manage stress was critical data for understanding this problem of practice. Their experiences in school settings and their methods for using structural supports to promote and foster self-care provided valuable data to the research. Quantitative data was gathered through demographic data, screeners and student surveys and the qualitative data was gathered from open response questions and a follow-up student group interview. Efforts were made to combine the qualitative and quantitative data since combined data does a better job of understanding the problem than either research method by itself (Creswell, 2014). For this problem of practice, quantitative data added context to the problem and I used qualitative data collection methods to dive into the perceptions of students and give them further voice about this problem of practice.

### **Problem Setting/Context**

Although the focus on teen stress is relatively new, by-products of stress such as anxiety and depression and the social and emotional learning (SEL) of students have been causes of concern in schools for some time. Schools have made efforts to place more mental health workers in schools and efforts to address social and emotional health of students has increased

beyond just hanging motivational posters in the hallways, which although well-intentioned, have shown to have no impact on student behavior (Cohen & Sandy, 2003). A more direct approach was warranted and schools have responded by developing school-wide comprehensive SEL programs over the last decade that focus on coordinating the school climate with social, emotional, ethical, and cognitive types of learning (Berkowitz & Bier, 2005). In the school used for this study, there was an implementation of school-wide, comprehensive and integrated system of support that included a SEL curriculum component with lessons incorporating information about stress and stress management. Whether these lessons directly provided students with adaptive abilities to manage stress remains unclear, but through examining the perceptions of students through their own voices, the research has revealed the role that these school programs play in stress management.

The secondary school in this study was a large, suburban high school in Northeast Kansas that operates on a modified block schedule. The school has approximately 1,600 students and is one of two high schools in the school district. The school is in a college town and many residents of the community are graduates of the local university. The school is centrally located in the community and occupies a 70-year-old building that served as the only high school for the city until a second high school was opened in 1997. In 2017, the school's economically disadvantaged student population made up 42.3% of the population compared to 28% of the newer high school. The 42.3% represents an increase from 39.5% in 2013. The school is 65.4% white, 6.8% African American, 9.4% Hispanic and 18.4% reported as other with a building graduation rate of 90.3%. However, students who received free or reduced meals graduated at just 82.5% which is down from 84.5% the year before ([www.ksde.org](http://www.ksde.org)).

As part of the school-wide Social and Emotional Learning focus, a standardized SEL curriculum was purchased from the Connect With Kids Network and a special calendar was devised to teach the lessons to all students during the school year. In addition to the SEL curriculum used in the school, the school also developed a student intervention plan which included tiered strategies to support students who identify as needing additional supports. Attendance, academic marks and office referrals were data sources used to determine where additional intervention was needed. Also, as a part of the Ci3T implementation, all students were screened on an internalizing and externalizing rubric that provided an additional data point for identifying areas for interventions. The screener data contained quantitative information on student behavior and included specific categories attributed to stress such as anxiety and depression. The results from the screened data will be used in this study to both acknowledge that students are demonstrating stress-response behaviors and to serve as a baseline understanding of stress levels for students. This baseline stress level from the screeners is then compared to the student stress perceptions from the surveys collected for this study. The goal is to determine if the local screener data presented an accurate picture of the student stress levels.

### **Research Sample and Data Sources**

This study provided an opportunity to survey a large population of secondary students and allowed these students to provide their own perceptions about the problem of practice of stress in secondary schools. Presently, the current screening tool utilized by this school is a verified data collection tool called the Student Risk Screening Scale -Internalizing and Externalizing (SRSS-IE). The screener is completed by teachers three times per school and scores are generated based on classroom observations and interactions. Quantitative data for this study is derived from three sources: district demographics, SRSS-IE screener data and student

stress perception surveys. The qualitative data in this study is gathered through open response questions on the student survey and a follow up interview with select students.

### **Screeners Data**

SRSS-IE screeners are completed by all teachers who have students first period. The screener data contains quantitative information regarding observed behavior that can be associated with stress such as anxiety or depression. The screener data from an entire calendar year will be presented to look at stress-related trends for the student population.

### **Survey Participants**

The building principal provided this study with diverse classes of students at this high school to invite participation in the student stress perception survey. Working with classroom teachers, students were provided with a description of the study, risks and benefits, voluntary participation information, confidentiality disclosure, and the right to withdrawal or not participate. Answers from all surveys are kept confidential per University of Arkansas policy. All surveys were introduced by the researcher and delivered in paper form. The survey data was collected and used for data analysis and survey participants who agreed to take part in a group follow-up interview were selected.

### **Interview Participants**

Students were selected for the interview process through purposeful convenience sampling of students. Convenience sampling allows for the selection of a sample that was a part of the school district, was close and easy to access, and was rich in experience and information to add to the study (Creswell, 2005). The convenience sampling was used to deliberately provide an interview group reflective of the average survey participant. Participants who agreed to be interviewed received information about confidentiality per University of Arkansas policy. Prior

to participating in the interview, participants and parents signed informed consent forms that outlined the description of the study, risks and benefits, voluntary participation information, confidentiality disclosure, and the right to withdraw as provided by guidelines set by University of Arkansas policy and IRB approval.

### **Data Collection Methods**

A request to conduct this study was submitted to the University of Arkansas Institutional Review Board (IRB). In addition to University of Arkansas IRB approval, permission was secured from the school district and building principal where the research study was conducted. Having received permission from all parties, demographic information and descriptive statistical information was collected. A copy of consent was provided to all students and parents as part of the survey and interviews. A mixed methods design was used as both qualitative and quantitative data was collected, organized and analyzed.

The problem of practice addressed through this study is to examine how students identify and experience stress and explore the adaptive abilities students utilize to support stress management. This problem of practice relates to goals set by the school district and many others throughout the nation that are beginning to place more emphasis on student mental health needs. Specifically, for the district used in this study, in the Fall of 2016, the school board mandated that specified suicide prevention training be developed and implemented throughout the district. The school board goals outlined that all district staff receive this mandatory training by January 2017 and that the district continues to explore needs and improve mental health services. The research in this study uses the perceptions of students' stress experiences to understand the ways in which students are managing stress. To address this problem of practice, data was collected using the following tools:



## Screeners

The Student Risk Screening Scale – Internalizing and Externalizing (SRSS-IE) is completed by every first period teacher with students for data on behaviors that may be manifestations of stress. The SRSS-IE is an adapted version of the SRSS (Drummond, 1994) designed to detect students with internalizing and externalizing behavior patterns (See Appendix A). The SRSS-IE modifies the original 7-item SRSS with the inclusion of 5 new items characteristics of internalizing behaviors. The SRSS-IE includes the original seven items and the new five items with all items rated on a 4-point Likert type scale: never = 0, occasionally = 1, sometimes = 2, frequently = 3 (Lane, et al. 2016.) Results from all three screeners during the 2018-2019 school year were collected and analyzed.

## Student Stress Perception Surveys

Surveys are an important means for allowing people to tell their own stories. Ravitch and Carl (2016) noted that “a survey approach to research is often used to gather information about individual’s attitudes, beliefs, and behaviors” (p. 172). Understanding the unique perceptions of students will allow this information to drive the data analysis necessary to determine the adaptive abilities that students have to manage stress. The Student Stress Perception Survey designed for this study can be found in Appendix B. Part of the survey included the 10-item Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983) - a popular and widely used stress scale - to assess to which degree the students find their lives “unpredictable, uncontrollable, and overloading” (p. 387). As an example, the scale asked questions such as, “*In the last month, how often have you felt that things were going your way?*” Students indicated their responses using a 5-point Likert scale ranging from 0 (never) to 4 (very often).

In addition to containing the PSS, the survey asked students to provide responses in the following categories:

1. Background Information: grade, gender, post-secondary plans.
2. Academics: estimation of GPA (0–4.0 scale), average amount of time spent per night on homework and other class assignments and the overall connection students feel toward their school on a 5-point Likert scale (0 = not at all, to 4 = extremely).
3. Sources of Stress: potential sources of stress (academic, social, home, world) and students' perceived level of stress (0 = never to 4 = often) on each item over the past month.
4. Stress Management: students will be asked to what extent (0 = never to 4 = often) school staff and the school in general, friends and family help students with their stress. Students will also be asked about adaptive abilities for managing stress.

### **Follow-Up Interview**

Seidman (2103) stated that “at the root of in-depth interviewing is an interest in understanding the lived experience of other people and the meaning they make of that experience.” (p. 8). By following the student perception surveys with a group interview (Appendix C), the research into understanding the perceptions of stress of students will be deepened by allowing students to examine their own perceptions on stress through personal story telling. Group interview questions will be primarily open-ended elements and responses will be recorded, transcribed and labeled anonymously to protect the student participants.

### **Data Analysis Methods**

Once data has been collected and stored, the first step of data analysis will be to code the data so that it may be disaggregated. The Likert scale responses will be calculated for means so that comparisons to the population can be made. Following a critical analysis of the data, the student perceptions survey and open-ended responses will combine with the follow-up interview to answer each of the research questions. In looking for successful adaptive abilities for students, common responses will be categorized and a presentation of the information will be summarized and included in the following chapter. Responses will also be used to explore the relationship between the student and the school in managing stress.

### **Identification of Ethical Issues and Safeguards**

Gathering information on stress may involve sensitive information. As such, I need to be aware that all data and survey information is strictly confidential and that all interviews are conducted with genuine care and concern for the perceptions and emotions of the participants. The rights of all participants in this study will be protected by a consent agreement provided by the University of Arkansas IRB. Included in the IRB will be an option to refuse to participate at any time during the study, as well as a statement for students ensuring that the participants' status with the school would not be affected in any way if they refuse to participate. This study will use multiple methods of data collection – screening data, surveys and interviews that will be collected and stored on a secured internal hard drive with only my ability to access the information. Survey data will be anonymous and confidential to allow for honest sharing and open feedback by participants. This will allow participants that choose to be part of the study to share their opinions confidentially without there being knowledge of what responses were from specific individuals. Surveys will be delivered to students by paper format in partnership with

classroom teachers who collect the surveys and deliver them back to the researcher. All participants' identities are kept confidential. Results of all surveys were made available to all participants. Interviews were transcribed, coded and shared with the interviewees to ensure accuracy. All interview information utilized throughout the research process is anonymous.

### **Trustworthiness**

Ravitch and Carl (2016) explained, "researchers must make deliberate methodological choices to acknowledge, account for, and approach researcher bias and the assumptions that drive, frame, and shape your research" (p. 383). As such, steps will be taken to reduce researcher bias. These steps include compiling detailed and varied student perception survey data from a diverse range of students so that the responses reflect a wide range of views and not just a specific population to achieve the desired responses to the research questions. Also, no data within the scope of this study will be deliberately ignored in order to present the research in the most favorable light.

As a district building administrator, I must act critically and deliberately to be viewed as a researcher and not just as a principal. Through honesty, integrity and a favorable reputation in education, I am hopeful that the students will see me as an active participant in using the research to help our schools continue to improve. Herr and Anderson (2015) warn not "to treat one's personal and professional self as an outside observer rather than an insider committed to the success of the actions under study" (p. 41). I want my students and colleagues to know that that we are all working together for the collective goal of improving the school experience for everyone, particularly by finding ways to promote positive stress management.

### **Limitations and Delimitations**

Following Creswell's (2003) explanation that "delimitations address how the study will be narrowed in scope, whereas limitations identify potential weaknesses of a study" (p. 150), the study has been narrowed by using data that focuses on perceptions of stress by students. Limitations include the school being studied may have different influences and stressors than other schools and therefore may not be generalizable to other schools. Although using a select sample of students may affect the generalization of this research, the study will answer the research questions for this problem of practice which may assist other communities with similar concerns. Another limitation will be time. The study will be conducted in the fall of the school year and will therefore be based on the conditions and events occurring during that time. Also, dealing with surveys for students can be problematic because surveys are common occurrences throughout any district and are subject to being "rushed through" to just get them done instead of giving good, reflective responses.

### **Summary**

This purpose of this study is to examine how students experience stress and explore student self-care habits that support stress management. Through the use of qualitative and quantitative data collection, the perceptions of students will be collected and analyzed to answer the research questions and provide context for examining the problem of practice of stress in secondary schools. Chapter Four will present the data collected for this study and identify themes around the student stress experience.

## **CHAPTER FOUR – RESULTS AND FINDINGS**

### **Introduction**

The purpose of this study was to determine the ways students perceive stress and to identify the adaptive abilities students have developed to manage stress. Additionally, because of the important part schools play in the daily lives of teenagers, the role of the school in working to reduce student stress was examined. Mixed-methods measures were used to collect and analyze student perceptions gathered through surveys as well as follow-up interviews which provided insights into the present understanding of high school students and stress. The data gathered in this study will supply school advocates with valuable information on students' experiences with stress. Schools can use this data to reflect on current support practices and develop intentional programming to help students adapt to stress and become equipped to manage their stress thermostats.

The target site for this research study was a large high school in northeast Kansas that shares similar student demographics to student populations across public high schools in Kansas. Granted, each community throughout the state may have stressors unique to that location that might affect stress perceptions, but state data demonstrates this school reflects demographic averages of a typical public high school population in Kansas. A primary difference however is in overall student population. Per the classification system used by the state of Kansas for competitions, the school used for this study is a member of the largest school classification, meaning this school is one of the 36 largest high schools in Kansas. Despite the size, Table 1 shows how this school's population compares to the Kansas state average.

Table 1  
*State of Kansas and Targeted School Demographics*

Characteristics	Kansas %	School %
Gender		
Male	51.37	52.78
Female	48.63	47.22
Ethnicity		
White	63.81	65.53
African American	6.88	6.57
Hispanic	20.07	10.92
Other	9.24	16.98
Socioeconomic Status		
Disadvantaged	47.30	40.28
Non-Disadvantaged	52.70	59.72
Disability Status		
Students with disabilities	15.17	14.46
Students without disabilities	84.83	85.54

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*Note: There are 393 public high schools in Kansas*

In 2015, the school in this study participated in its district's initiative to institute a more cohesive and comprehensive approach to developing student supports. Through a partnership with a neighboring university, a student support system, known as the Comprehensive, Integrated, Three-Tiered System of Support or Ci3T was designed to integrate the academic, behavior, and social needs of students in to a school wide system of supports. An important component of this Ci3T implementation process included a school-wide screening tool called the Student Risk Screening Scale (SRSS).

The Student Risk Screening Scale (SRSS) is a universal screening tool used three times per year to identify students who may be at risk for behaviors that can impact their academic

experience. The SRSS is administered by classroom teachers and the students are scored based upon teacher observations of the student. The results from the SRSS can then be used by school leaders to select appropriate supports for identified students. The SRSS is not used to make high stakes decisions or to label students, but is intended as an assessment of traits and observed behaviors to be combined with other data sources to indicate student risk. The SRSS plays an important role for this study because the SRSS measures for behaviors that are commonly associated with stress, such as anxiety, depression and loneliness. High scores in these areas may provide schools with information on the amount of stress students are experiencing.

Collecting school-level data such as the SRSS is advantageous because it allows educators to assess how well programs within school systems are meeting all students' social and behavioral needs. Similar to universal screening for vision and hearing, the SRSS is a key component of developing prevention efforts. Through the SRSS, the school has information to make proactive decisions on support structures instead of waiting for behaviors to fully manifest before intervening with reactive supports that may be too little too late. For this study, the results of the SRSS can provide baseline data that will be useful for measuring the amount of stress students experience and identifying associated behaviors that accompany stress. The SRSS data was provided by the school for this study and is presented along with the research data from the student perception surveys and follow-up interview. The SRSS and research study data are then compared to determine how well the observed stress perceptions from the SRSS match the student perceptions identified using their own voices and experiences.

### **Student Risk Screening Scale (SRSS)**

The SRSS is comprised of both internalizing (I) and externalizing (E) items teachers use to rate their first hour classroom of students based on current knowledge and observation of each



individual student's behavior. Due to the presence of the internalizing and externalizing items, the SRSS is will sometimes appear as the SRSS-IE, but in this study, it will be referred to only as the SRSS. To screen the students, teachers rate the frequency with which students display a described behavior on the SRSS form using a range from 0 (Never) to 3 (Frequently.). The screener template used by teachers at this school is located in the appendices (Appendix A) and is administered three times per school year:

- Fall: October (6 weeks after the start of school)
- Winter: December (2-3 weeks before winter break)
- Spring: April/May (6-8 weeks before the end of the school year)

Scores from the SRSS are calculated and cut scores are used to place students into one of three risk categories: Low, Moderate, or High. The cut scores at this school were determined by the research team at the partnering university by using data collection from five school districts in Kansas and Michigan (Lane, et al, 2016.). Figure 2 displays the items students are screened for in the SRSS followed by the cut scores as determined by the research team.

Risk Status Category	SRSS-E7	SRSS-I6
	Original 7 items; cut scores developed by Drummond (1994)	New 5 items developed to measure internalizing behaviors, summed with the peer rejection item
Items	<ul style="list-style-type: none"> <li>• Steal</li> <li>• Lie, cheat, sneak</li> <li>• Behavior problem</li> <li>• Peer rejection</li> <li>• Low academic achievement</li> <li>• Negative attitude</li> <li>• Aggressive behavior</li> </ul>	<ul style="list-style-type: none"> <li>• Peer rejection</li> <li>• Emotionally flat</li> <li>• Shy, withdrawn</li> <li>• Sad, depressed</li> <li>• Anxious</li> <li>• Lonely</li> </ul>
Low	0-3	0-3
Moderate	4-8	4-5
High	9-21	6-18

Figure 2. Student Risk Screening Scale for Internalizing and Externalizing Behaviors: Preliminary cut scores to support data-informed decision making in middle and high schools. Lane, K. L., Oakes, W. P., Cantwell, E. D., Schatschneider, C., Menzies, H., Crittenden, M., & Messenger, M. (2016).

A school looking at student scores in the SRSS would ideally find most of its students with a collective score of 0-3, placing them in the low risk category, which based on information provided by the Ci3T research team on average represents approximately 80% of students across surveyed schools. Moderate SRSS scores would represent approximately 15% of the student population with high risk students representing 5%. Collective fluctuations above or below these percentages would indicate a need for the school to determine a possible schoolwide disruption affecting the overall scores. The SRSS is also broken down by individual scores to ensure that no student scoring in the high-risk range goes unidentified. Schools can then use this individual data to allocate resources to students whose reports determine the greatest needs. The results of the screener data from the 2018-2019 school year was provided for this study and is located in Table 2 and Table 3. Table 2 reports the SRSS External scores and Table 3 reports the SRSS Internal scores.

Table 2  
2018-2019 Screener Data – External

Date	Grade	N	Low (0-3)	Moderate (4-8)	High (9-21)
Fall					
	9	351	88.6% (311)	7.7% (27)	3.7% (13)
	10	361	90.9% (328)	7.8% (28)	1.4% (5)
	11	326	92.6% (302)	5.5% (18)	1.8% (6)
	12	290	96.6% (280)	3.1% (9)	0.3% (1)
Winter					
	9	321	81.6% (262)	14.3% (46)	4.0% (13)
	10	349	86.0% (300)	11.7% (41)	2.3% (8)

Table 2 (Cont.)  
 2018-2019 Screener Data – External

Date	Grade	N	Low (0-3)	Moderate (4-8)	High (9-21)
Winter	11	349	92.6% (323)	4.0% (14)	3.4% (12)
	12	319	95.0% (303)	4.1% (13)	0.9% (3)
Spring	9	376	81.4% (306)	14.4% (54)	4.3% (16)
	10	325	86.2% (280)	9.8% (32)	4.0% (13)
	11	315	92.4% (291)	6.3% (20)	1.3% (4)
	12	282	94.0% (265)	5.3% (15)	0.7% (2)

*n* = Number of students fluctuates from Fall, Winter and Spring due to not all teachers completing screener data or movement of students throughout school year.

Table 2 is a collection of scores based on the SRSS items associated with external behaviors. Referring to Figure 2, these items would include observed behaviors such as negative attitudes and aggressiveness. As previously discussed, when stress increases, the tolerance level for managing frustration decreases leading to feelings of irritability and anger, which increases the likelihood for angry outbursts or social withdrawal (Hendricks, Bore, Aslinia and Morriss, 2013). An examination of Table 2 show that SRSS scores hold steady over the course of a school year at grade level and the percentage of low risk students increases as grade level increases. This would suggest that teachers are observing more at-risk behaviors in their younger (by grade) students. One possible explanation for this result is that high risk students are dropping out prior to their junior and senior years and thus eliminated from future SRSS data collections. Or perhaps, much like in Stage 2 of Selye's GAS theory, students are developing

adaptive abilities through their matriculation in high school and are controlling behaviors better than they did as freshmen. Either way, longitudinal data on students would be needed to find the exact cause for the fluctuation in scores from ninth grade to twelfth grade, but regardless, the SRSS is helpful to this study by providing some metric for the perceived stress levels for students even if it based on external observations. Using just the SRSS scores in Table 2 for external behaviors, two patterns are identified: scores are consistent throughout the school year and the percentage of high-risk students decreases as grade level increases. Based on these patterns, a statement on the stress experience for students would be that levels remain constant throughout the school year but reduce as students move from grade to grade. Also, if a student's school year begins stressful, it will likely stay that way until the spring.

The next table, Table 3, contains the SRSS scores for internalizing behaviors, which have similar patterns to the external behaviors in Table 2.

Table 3  
*2018-2019 Screener Data – Internal*

Date	Grade	N	Low (0-3)	Moderate (4-8)	High (9-21)
Fall					
	9	351	88.9% (312)	4.8% (17)	6.3% (22)
	10	361	89.8% (324)	3.9% (14)	6.4% (23)
	11	326	93.6% (305)	5.2% (17)	4.3% (14)
	12	290	97.6% (283)	1.4% (4)	1.0% (3)
Winter					
	9	321	89.1% (286)	5.3% (17)	5.6% (18)

Table 3 (Cont.)  
 2018-2019 Screener Data – Internal

Date	Grade	N	Low (0-3)	Moderate (4-8)	High (9-21)
Winter					
	10	349	91.4% (316)	3.4% (12)	6.0% (21)
	11	349	87.1% (304)	5.7% (20)	7.2% (25)
	12	319	89.0% (284)	5.0% (16)	6.0% (19)
Spring					
	9	376	88.0% (331)	4.0% (15)	8.0% (30)
	10	325	86.5% (281)	6.2% (20)	7.4% (24)
	11	315	88.2% (278)	4.8% (15)	7.0% (22)
	12	282	89.7% (253)	3.9% (11)	6.4% (18)

*n* = Number of students fluctuates from Fall, Winter and Spring due to not all teachers completing screener data or movement of students throughout school year.

Table 3 displays the SRSS scores associated with internalizing behavior (Figure 2) such as sadness, anxiety or loneliness. Of concern is that stress has been attributed to causing internalized behaviors such as disengagement, helplessness and depression that may lead to suicide in teens (Polanco-Roman, Gomez, Miranda & Jeglic, 2016). A concerning area where these internalized SRSS differ from externalizing scores is in the percentage of students identified as high risk who do not decrease as the students move from grade to grade. In other words, students who are identified as sad, lonely and depressed students do not appear to be receiving effective support to combat these emotional issues for the duration of their high school experience. Another area of concern that differs from external SRSS is in the case of seniors

who appear to display higher risk categories as the school year proceeds. This internalizing data suggests that seniors stress levels may increase as the finality of high school approaches.

Both sets of SRSS provide this study with good baseline information. Students are exhibiting behaviors associated with stress throughout their high school experience. External behaviors appear less frequently over time and the internalized behaviors are constant and actually appear more frequently towards the end of the high school experience. This trend indicates that students are not utilizing the appropriate adaptive abilities to manage stress as they approach graduation. Nevertheless, being that the SRSS is the only school-wide assessment with stress behaviors and this school's SRSS data reports nearly 90% of the students' observed behaviors score as low risk, it could be interpreted that the current school-wide efforts are meeting the needs for a large majority of students and very few school-wide adjustments are necessary. However, the problem of practice for this study is to understand how the students themselves experience and manage stress, so although the school does gather school-wide data on behaviors related to stress, the results are only based on what teachers observe. This research study gathers the perceptions of stress directly from the students and uses their voices to present a picture of what the high school stress experience is like from their point of view. By comparison of the SRSS results with the stress perception results, the school can determine if the data reflected through teacher observations is in line with what the students say they are experiencing. If schools justify school programming using data-driven results, but make no consideration to include student voice in the data, then it is counter-productive to add programming and call it "student-focused." This study can assist schools to better serve the needs of students by providing schools with data containing the unique perspectives and voices

of students that might otherwise be missed (or ignored) due to schools solely relying on behaviors and teacher observations instead of asking the students themselves.

### **Student Perception Survey on Stress**

The primary method to gather student voice for this study was through the use of a student perception survey (Appendix B.) The survey was developed for this study based on research presented in Chapter Two of this study and was designed to gather students own perceptions on stress. The school district declined providing the survey to the entire student body, but did grant permission to work with the building principal to identify classes with diverse populations and willing teachers who would participate in the survey. Working directly with classroom teachers allowed for better communication between guardians and students to provide consent for the research project. Working with minors in research involves additional time and effort due to safeguards imposed by the school district, the state of Kansas and the University of Arkansas but it was important to gather the unique perspective and voice of teens as it was necessary for this study. After selecting and soliciting 20 teachers for assistance, 10 teachers responded as willing participants to help facilitate the survey which created access to 640 potential responses. After providing consent to guardians and students, surveys were presented to willing participants in the supporting classrooms. Teachers graciously provided sufficient time for completion. Instructions were read to the participants and surveys were collected by the classroom teacher in sealed envelopes that were then delivered to me for recording and analysis. This procedure provided the study with 312 ( $n = 312$ ) individual stress response surveys which, based on a school population of 1584 yielded a confidence level of 95% with a margin of error  $\pm 4.97$ .

For the population of the 312 students participating in the perception survey, gender was the only demographic data collected as a means to demonstrate a varied distribution of survey respondents. Other demographic data such as race, income and/or disability was not collected because existing research has already provided correlations between these descriptors and stress (Cohen and Janicki-Deverts, 2012) and ultimately that information was not necessary for the goals of this study. This study's goals were to collect student perceptions on their stress experience at school to determine causes of stress, stress management techniques and the methods the school uses to help students with stress management. Student characteristics collected included grade, GPA, minutes per night spent on homework, and post-secondary plans. Table 4 displays a profile of the students who participated in this survey.

Table 4  
*Student Characteristics of Stress Perception Survey (N=312)*

Characteristics	n	%
Gender (N = 310)		
Male	135	43.6
Female	166	53.5
Other	9	2.9
Grade (N = 299)		
9	52	17.4
10	74	24.7
11	55	18.4
12	118	39.5
Grade Point Average (GPA) (N = 287)		
< 2.0	22	7.7
2.0 – 2.5	30	10.5
2.5 – 3.0	52	18.1
3.0 – 3.5	66	22.0
3.5 – 4.0	103	35.9
4.0 +	16	5.6



Table 4 (Cont.)

*Student Characteristics of Stress Perception Survey (N=312)*

Characteristics	n	%
Average amount of minutes spent per night on homework (N = 309)		
Less than 30	69	22.33
30 – 60	99	32.04
60 – 90	57	18.45
90 – 120	39	12.62
120 – 150	25	8.10
More than 150	20	6.47
Post – Secondary Plans (What do you plan to do after high school?) (N = 308)		
4 – Year College	210	68.18
CTE/Trade School	18	5.84
Workforce	6	1.95
2 – Year Community College	23	9.58
Military	13	4.22
Unsure	47	15.26

*N varies by characteristic due to some respondents leaving answers blank*

### Student Profile of Survey Respondents

Using mean and mode scores from items in Table 4, the average student who participated in this study would be a junior in high school ( $\bar{x} = 10.8$ ) although the highest number of respondents were seniors (mode = 118). Means for continuous categories of GPA and hours spent on homework from Table 4 would result in an average GPA just below a 3.0 GPA ( $\bar{x} = 3.86$ ) with approximately 60-90 minutes spent on homework per night ( $\bar{x} = 2.72$ ). Based on the nominal categories in Table 4 for Post-Secondary plans, the majority of student responders (mode = 210; 68.18%) plan to attend a 4-Year college after graduation. Students who were used for the follow up interview were solicited based on criteria reflective of these average characteristics. The qualitative information from the follow-up interview is not the primary data

used for this study but does provide supporting narrative to the results from the stress perception survey data.

Another profile question students were asked in the survey was to provide information on the level of connectedness they feel towards the school. Those results are presented in Table 5.

Table 5  
*Student Connectedness (N=307)*

Survey Question	n	%
How connected to you feel towards your school? (N = 307)		
Not at All	31	10.10
Slightly	58	18.89
Somewhat	134	43.23
Very	72	23.23
Extremely	12	3.87

*5 of the 312 completed surveys did not respond to this question (N = 307)*

### **Follow-Up Interview**

To gather supplemental information for this study, structured interview questions were established to allow participants to give detailed answers while participating as a group. Based on the median student profile created from the student surveys, a pool of juniors in high school were solicited for participation in the group interview portion of the study. The questions used in the focus group interviews were developed from the literature review and contextual framework. The interview is located in Appendix C. The group interview was administered in a conversational manner and allowed participants the ability to freely express their opinions. Students agreeing to participate in the follow up interview were provided parental consent forms that were completed and collected prior to the interview. The students were interviewed as a

small group and consisted of structured questions with each student taking turns to answer each prompt. Interviewing a group rather than collecting individual interviews not only saved time but provided the students with a more relaxed environment as the shared experiences of others allowed each to open up with their own responses. During the interview, students would occasionally talk over one another, but then would politely yield to a peer. None of the questions led to a discussion between the students as might happen in a focus group which kept the interview session structured. While the student perception survey did provide opportunities for qualitative data through open response questions, the follow up interview session allowed for a deeper understanding of the student stress experience, particularly the ways in which students experience stress and the adaptive abilities they use to manage stress. Students also provided information about their experiences with the school's efforts to foster their adaptive abilities.

### **Findings and Major Themes**

This study aimed to answer three research questions. In the section that follows, each of the three research questions are presented with supporting quantitative and qualitative data from the study related to the research question. At the conclusion of each research question, major themes are identified that will be expanded upon in a subsequent section of Chapter Four.

#### **Research Question 1: What stress do students report experiencing?**

As previously mentioned in the study, stress can have different meaning to each person. While there are known physiological responses to stress that can be identified, the ability to immediately measure stress solely through physical responses is not always available. Also, using observations from teachers may not accurately reflect the perceptions of the students being observed. All individuals experience stress, but the unique perceptions of each individual are necessary to determine the stress that each person experiences. In order to measure the stress

experience of students for this study, a common and widely used stress inventory scale developed by Sheldon Cohen (1983) called the Perceived Stress Scale (PSS) was incorporated into the student stress perception survey. The PSS has multiple variations but the most common scale used is the 10 questions version named the PSS-10 and is the version used for this study. Permission for use of the PSS scale is not necessary when used for nonprofit academic research. The PSS is not a diagnostic instrument with score cut-offs like the school's SRSS data but norming scores have been established for the PSS-10 based on an L. Harris Poll that gathered information from 2387 respondents across the United States (Cohen & Williamson, 1988). Additionally, the PSS-10 has been established as a psychometrically reliable and valid. Specifically, the internal consistency of the PSS-10 is relatively high (Cronbach's  $\alpha = 0.78$ ). (Cohen & Williamson, 1998). Per Cohen and Williamson, items in the PSS-10 were designed to tap how unpredictable, uncontrollable, and overloading survey respondents view their lives. The PSS-10 is a self-report instrument and each of the items on the PSS-10 are rated on a 5-point Likert Scale ranging from 0 (never) to 4 (very often). The PSS-10 consisted of 6 negatively worded items (1, 2, 3, 6, 9 and 10) and 4 positively worded items (4, 5, 7 and 8). A combined total of the negative and positive scores range from 0 to 40, with higher scores indicating higher levels of perceived stress.

All ten of the PSS questions provided to students were introduced with *"In the last month, how often have you. . . ,"* which was followed by such items as *felt nervous and "stressed," been angered because of things that were outside of your control, and felt that you could not cope with all the things that you had to*. Knowing how students perceive stress in their lives is important because high stress perceptions are frequently identified with negative health outcomes (Lazarus & Folkman, 1988).

The results of the PSS-10 from the student survey are presented in Table 6.

Table 6

*Perceived Stress Scale (PSS) of Student Survey Responders: In the last month, how often have you...*

Survey Question		Mean	Never	Almost Never	Sometimes	Fairly Often	Very Often
		$\bar{x}$	0	1	2	3	4
Q1	Been upset because of something that happened unexpectedly?	2.39	4.8% (15)	12.2% (38)	37.2% (116)	30.4% (95)	15.1% (47)
Q2	Felt that you were unable to control the important things in your life?	2.38	8.0% (25)	15.9% (49.5)	25.2% (78.5)	30.9% (96)	19.6% (61)
Q3	Felt nervous and “stressed?”	3.08	2.3% (7)	7.1% (22)	16.5% (51)	28.2% (87)	45.6% (141)
Q4	Felt confident about our ability to handle your personal problems?	2.39	2.9% (9)	13.9% (43)	39.5% (122.5)	29.2% (90.5)	14.5% (45)
Q5	Felt that things were going your way?	1.94	6.1% (19)	25.4% (79)	40.8% (127)	23.8% (74)	3.9% (12)
Q6	Found that you could not cope with all the things you had to do?	2.16	8.1% (25)	21.1% (65)	31.0% (95.5)	26.5% (81.5)	13.3% (41)
Q7	Been able to control irritations in your life?	2.10	2.9% (9)	23.2% (72)	41.2% (128)	26.7% (83)	6.1% (19)
Q8	Felt that you were on top of things?	1.99	7.1% (22)	20.3% (63)	45.5% (141.5)	21.1% (65.5)	6.1% (19)
Q9	Been angered because of things that were outside of your control?	2.52	4.5% (14)	12.4% (38.5)	30.1% (93.5)	33.1% (103)	19.9% (62)
Q10	Felt difficulties were piling up so high that you could not overcome them?	2.34	6.4% (20)	19.3% (60)	28.3% (88)	26.0% (81)	19.9% (62)

*Some respondents did not answer every question: Q7 (N=312); Q8, Q10, Q11, Q13, Q14, Q15, Q16 (N=311), Q9 (N=309); Q10 (N=310).*

*Note. PSS = Perceived Stress Scale (Cohen et al., 1983; Cohen & Williamson, 1988)*

Through summarization of the means for the students' PSS-10 scores, a psychological stress score can be established. With the exception of four items (Q4, Q5, Q7, Q8) that were worded in a positive direction and thus need to be reverse-scored, the means to the 10 items are added together to create a psychological stress score, with higher scores indicating greater psychological or perceived stress. For this study, the students completing this Perceived Stress Scale have a combined stress score of  $PSS = 22.5$ , which is a high PSS when compared to normed scores. To make the case that this PSS is high, the scores from this study can be compared to previously normed PSS data collected in 1983, 2006 and 2009 (Cohen & Janicki-Deverts, 2012) for reference. For example, norms for healthy adults of various ages are reported to range from a mean PSS of 11.9 (age 55–64 years) to PSS 14.2 (age 18–29 years) and in the case of gender, PSS 12.1 (Males) and PSS 13.7 (Females). Also, when examining single question number 3, where the students are asked how often they have *felt nervous or "stressed,"* 73.8% of students said they were *fairly often* or *very often*. This number stands in contrast to the SRSS screener data presented in Table 2 and Table 3. Based on the data in those tables, nearly 90% of students are categorized as low risk but the PSS scores in the student survey tell a different story about the experience of students. The discrepancy between what is observed by the school compared to what is perceived by the students as well as the alarmingly high PSS are concerning and contribute to the continued examination of this problem of practice.

Select students were interviewed as a follow up to the stress perception surveys with the purpose of gathering a deeper understanding of how they experience stress. Their responses will be shared throughout this presentation of findings. As to research Question 1: *What stress do students report experiencing*, the survey specifically asked how often students experience stress which resulted in a PSS of 22.5 whereas the follow-up interview questions allowed the students

more flexibility to describe what stress looks and feels like when they know stress is present.

Taking the perspective of one student, he described the stress experience in the following way:

So, me, personally, when I see my stress, I'd talk to you in a different way. I'm usually an energetic, annoying person sometimes. But if I'm really stressed, I won't talk to you at all. I really won't talk to you, or I'd be wanting to leave school early, something like that.

From his perspective, he is able to identify a physiological marker of when stress is present by noting that his disposition changed. He is normally an outgoing student but notices he becomes more guarded and closed off when stressed. He also did not identify any adaptive ability he used to manage stress other than to withdraw from his peers, which is a primitive response to stress akin to the “flight” response from “flight or fight” theory. When asked to describe what stress looks like when it happens to his peers, he again named observed behaviors:

When I see my other friends who are stressed, I can tell because of their body language. So, I have a friend who's... he's cool and he's funny, stuff like that. But whenever he has stress, he doesn't talk, or he'll just give you a one-word answer if you ask him a question. So, that's how I could tell he's stressed.

Students are aware of behavioral changes in their peers. As other students shared their experiences with stress, the theme of observed mood changes and a desire to isolate continued to be a common talking point:

I pretty much just put on my headphones. I try and block people out when I'm stressed because everything just sends me over the edge. My moods are different. I'm just irritated with everything and everyone for no reason. Obviously, there's a reason. But just body language you can tell when people, when they're stressed, they're just different. Most cases, what I've noticed with my friends, they try to isolate themselves, to be themselves and deal with it, and they're not actually dealing with it.

This student recognizes stress occurring and shares that she and her friends often prefer to isolate when dealing with stress but there is recognition by this student that withdrawing and isolating may not be the best method for managing stress. Another student commented that he

knows when stress is occurring and will often put music on but he also admits to suppressing the issue, choosing to focus on his friends' well-being as opposed to his own:

I'm fun around with my friends and stuff. I like to hide my stress around my friends. I don't really show it as much. I try to just bring out the joy, make everyone laugh. When I'm stressed, sometimes, in class, I just like to put my music on.

The perspectives students share during the interviews are impactful because in these responses, the students report they know when stress is occurring and can identify physiological responses to stress in themselves and their peers. The data from the student perception survey identified that students were stressed, so the interview responses begin to identify narratives on adaptive responses student are using to manage stress. Through these responses, a theme emerges that although many students identify "listening to music" as an adaptive ability for managing stress, their responses present a picture of the music not necessarily being a method of relaxation, but rather, serves as a means to withdrawal and isolate from their environment. As one student sums up his reason for choosing music:

I can tell if I just want to be by myself when it's at school or just... That's why I put my headphones in because what else am I going to do to be by myself? I'd ask to go to the bathroom or something. Yeah, just block everything out.

The student survey identified students are stressed and are able to identify observed behaviors that occur when stress is acting on them or their peers. The next step in the survey was to determine the main cause of stress for teenagers based on their own perceptions. Using the literature review on major causes of stress among teens for reference, the students were provided a list of potential stressors from the research and asked to respond using a 5-point Likert Scale ranging from 0 (never) to 4 (very often) in response to the question: *In the past month, how much has each of the following categories contributed to the amount of stress you experience?* Those results are presented in Table 7.



Table 7

*Question 17. In the past month, how much has each of the following categories contributed to the amount of stress you experience?*

Categories		Mean	Never	Almost Never	Sometimes	Fairly Often	Very Often
		$\bar{x}$	0	1	2	3	4
Q17a	Academics (n = 311)	3.04	2.3% (7)	7.7% (24)	14.8% (46)	34.1% (106)	41.2% (128)
Q17b	Social Life (n = 309)	2.04	9.1% (28)	25.0% (77)	34.0% (105)	17.5% (54)	14.6% (45)
Q17c	Home Events (n = 309)	1.86	15.9% (49)	28.3% (87.5)	26.1% (80.5)	14.6% (45)	15.2% (47)
Q17d	World Events (n = 309)	1.34	2.9% (91)	13.9% (100)	39.5% (65)	29.2% (29)	14.5% (24)

*n varies due to incomplete responses from students*

Academics is the the major source of stress for the population surveyed for this study with 75.3% of students reporting that academics contributes *fairly often* or *very often* to their stress levels each month. The mean of 3.04 (SD = 1.04) confirms the impact of academics on the stress experience of students as compared to social life (m = 2.04, SD = 1.17); home events (m = 1.86, SD = 1.28) and world events (m = 1.34, SD 1.21). I am not surprised that academic stress is the most frequently cited cause of teen stress, but I am surprised that the other categories scored much lower, particularly social stress. Because the survey itself did not allow for much elaboration on why these categories were so stressful, the follow up student interview provided a forum for students to share their experience with stress at school. In the interview answers, academics continued to be the main culprit for stress, but not necessarily the academic content. It was ancillary factors associated with academics that are stress-inducing. The homework load is mentioned, but the stress comes from a lack of time to complete the work. As one student

shares, trying to make connections between the value of completing homework and balancing a job outside of school presents a challenge:

I know a big cause is in my math class, she'll [teacher] do three or four examples. Then, we'll just get a page in a book that has 30 problems in it. So, it was just a lot of work that needs to be done every day. When I come home, I have an hour. So, sometimes, I try to catch up. Then, I've just got to get ready [for work.]

Another classmate shared how lack of time creates stress in her life as well, also between finding balance between school and work. She also shares how the pressures of work and school balance creates additional stress by not providing down time for friends and family:

Time is a big stress. Time to do school work and just being a teenager as well as working. We're 17, we're going to be pretty much adults within the next year or two. We have a lot going on, too, not only deal with our future, but our present. I think that's hard sometimes to manage all of that. Dealing with certain factors, like [student] said, the time, dealing with school and going home, and then getting ready for work. You're missing that family or social interaction sometimes. That can be very stressful.

As opposed to the isolating nature of listening to music, social interactions force students to take headphones out of their ears and interact with others. Students identified the importance of social interactions with managing stress but expressed frustrations with their inability to use this stress management tool because of school structures causing barriers to their social lives. As one student shared:

I feel like with a lot of the... I don't want to say pressure, but getting to class all the time and we're supposed to go to the bathroom, maybe get a little, "Hey, how are you doing today," in five minutes and get to class and starting our bell work, whatever we have to do, which is a lot to try and keep that social factor in there. That can be very stressful.

### **Themes from Research Question 1**

- Current tools used by schools designed to measure student behaviors associated with stress do not accurately reflect the experience of the students.
- When high school students are provided the opportunity to report their stress levels, their results outpace other normed demographics.

- Students can identify stress occurring by identifying how it affects their mood and changes their behavior
- Students notice their friends experiencing stress by observing changes in their behavior.
- Academic stress is identified as the leading cause of stress for high school students.
- When elaborating on academic stress, the perceived lack of available time to get everything completed adds to the stress load.
- The structured pace of the school day restricts independence and causes stress.
- Teens are highly stressed

**Research Question 2: What are the adaptive abilities students identify and utilize to manage stress?**

The data related to research Question 1 describes the stress that students are experiencing and concluded that students are experiencing high levels of stress. Through Research Question 2, the study worked to gather data on the types of adaptive abilities the students are using to manage stress. The use of the term *adaptive abilities* in this study refers to the inner and external resources a person utilizes to protect against and diminish experienced stress. In the student stress perception survey, students were provided with a question that listed various people and programs and asked the students to rate how often they utilize these people or programs to manage their stress. A 5-point Likert Scale ranging from 0 (never) to 4 (very often) was used for this question and the results are presented in Table 8.

Table 8: People or Programs to Help Students Manage Stress  
*SSP Question 18. How much do each of the following people or programs help with you to manage your stress?*

People or Programs		Mean SD	Never 0	Almost Never 1	Sometimes 2	Fairly Often 3	Very Often 4
Q18a	Friends (N=310)	2.58 (1.1)	5.5% (17)	11.0% (34)	28.1% (87)	30.6% (95)	24.8% (77)
Q18b	Parents/Guardians (N=309)	2.26 (1.2)	9.7% (30)	16.5% (51)	30.1% (93)	25.6% (79)	18.1% (56)
Q18c	Siblings (brothers/sisters) (N=307)	1.41 (1.27)	31.6% (97)	24.4% (75)	21.5% (66)	16.7% (51)	5.9% (18)
Q18d	Teachers (N=309)	1.44 (1.05)	23.3% (72)	27.2% (84)	36.1% (111.5)	8.6% (26.5)	4.9% (15)
Q18e	Counselor/Social Worker (N=304)	0.99 (1.34)	51.6% (157)	18.4% (56)	16.1% (49)	7.2% (22)	6.6% (20)
Q18f	School Programs (Ci3T, Connect with Kids, etc.) (N=304)	0.38 (1.06)	75.7% (230)	14.5% (44)	6.9% (21)	2.0% (6)	1.0% (3)
Q18g	Media (N=306)	1.48 (.81)	30.4% (93)	22.2% (68)	26.5% (81)	11.1% (34)	9.8% (30)

The most common response to where students go for help to manage stress is friends, with well over half of respondents (55.4%) saying they often consult friends, then followed by parents at 43.7%. Counselors and/or social workers came in surprisingly low with only 13.5% of students saying they use this resource and over half of the students (51.6%) saying they have never used a counselor or social worker to help manage their stress. A more dramatic result occurs when students were asked about the programs currently being offered at the school that

are designed to assist with social and emotional school-wide supports as 75.7% of respondents reported they have never used these programs as a stress management resource.

Other questions on the student stress perception survey provided students with the opportunity to identify the adaptive abilities they have for managing stress through open response questions that directly asked them for the methods used for addressing stress and the ways they know these methods were working. Data from the open response questions were collected, and organized by theme. Although my experiences in schools predispose me towards believing that students do not have good tools for managing stress, I wanted to approach this data using a Grounded Theory approach and allow the themes to emerge from the responses rather than rely on my own anecdotal data. Question 19 from the student survey asked students, “*When you experience stress, what are some of the methods you use to manage stress?*” and of the 312 surveys completed, 285 students responded to this prompt. Some students providing more than one answer, yielding 520 combined responses. Those responses were organized by theme and are presented in the following table.

Table 9

*Summary of open-ended responses to the question; “When you experience stress, what are some of the methods you use to manage stress?”*

Theme	N	%	Specific Student Response Examples
Listen to Music	70	24.6%	• I listen to music
Sleep	49	17.2%	• I just temporarily blow off what’s bothering me and I sleep for like 10 hours
			• I sleep which stresses me out more
			• Sleep it feels good
			• Sleep to escape
Friends	41	14.4%	• Hang with friends
			• I usually talk to my friends
Make a List	38	13.3%	• I need to do lists so I don’t feel overwhelmed
			• I make a mental list of everything I must do and what can wait
			• Think about the task, one step at a time

Table 9 (Cont.)

*Summary of open-ended responses to the question; “When you experience stress, what are some of the methods you use to manage stress?”*

Theme	N	%	Specific Student Response Examples
Play video games	37	13.0%	<ul style="list-style-type: none"> <li>• Do things I like; video games</li> <li>• Get away from what I was doing, watch YouTube or a show</li> </ul>
Breathing Techniques	34	11.9%	<ul style="list-style-type: none"> <li>• Breathing techniques</li> <li>• Deep breath</li> </ul>
Exercise	28	9.8%	<ul style="list-style-type: none"> <li>• Ride my bike</li> <li>• Take a walk</li> </ul>
Avoidance	25	8.8%	<ul style="list-style-type: none"> <li>• Try not to think about the situation</li> <li>• Ignore it</li> <li>• Forget it</li> <li>• I stop caring which causes more stress, these aren't positive and actually increase my stress</li> </ul>
Talk to parents/family	23	8.1%	<ul style="list-style-type: none"> <li>• Talk to dad every night</li> </ul>
Sports	21	7.4%	<ul style="list-style-type: none"> <li>• Play sports</li> <li>• Cross country</li> </ul>
Cry	18	6.3%	<ul style="list-style-type: none"> <li>• I cry a lot</li> <li>• I cry or vent to my friends</li> </ul>
Isolation	18	6.3%	<ul style="list-style-type: none"> <li>• Stay home and take a day to myself</li> <li>• Isolate myself and sitting alone for a while; cry</li> <li>• nothing, I isolate myself so I do not lash out, talk to my friends but don't want to put problems on them</li> </ul>
Take a Break	18	6.3%	<ul style="list-style-type: none"> <li>• relax and take a break</li> <li>• take a break and try to calm down</li> </ul>
Just deal with it	17	6.0%	<ul style="list-style-type: none"> <li>• deal with it; suck it up</li> <li>• find out the cause, analyze it</li> <li>• I just live with the stress</li> </ul>
Eat	12	4.2%	<ul style="list-style-type: none"> <li>• stress eating</li> <li>• eat good food, drink water</li> </ul>
Change Mindset	12	4.2%	<ul style="list-style-type: none"> <li>• think about the task, one step at a time</li> <li>• I tell myself it is going to be OK</li> <li>• think about the good</li> </ul>
Don't know any	12	4.2%	<ul style="list-style-type: none"> <li>• I don't have the time to think about it</li> <li>• I don't, I just ignore it</li> </ul>
Meditate	10	3.5 %	<ul style="list-style-type: none"> <li>• Meditation</li> <li>• self-sooth</li> </ul>
Therapy	7	2.5%	<ul style="list-style-type: none"> <li>• I go to therapy</li> </ul>

*N = 285. Percentages do not equal to 100% because some students provided more than one answer.*

Responses appearing in at least 2.5% of respondents are identified and categorized in Table 9. Less than 2.5% was not included due to multiple singleton answers. Also, certain responses, an example being referencing drug use, were not included due to being outside of the

scope and permission for this problem of practice. Listening to music is the most frequently identified adaptive ability utilized by students to manage stress. Sleep, talking with friends, making lists, playing video games and breathing techniques are the next most frequently mentioned methods. All remaining methods were identified in less than 10% of responses from the students who were surveyed. The adaptive abilities students identify were not organized into positive or negative activities because in some cases, such as sleep, it is not clear whether students are sleeping to recharge their bodies or instead, use sleep as a mechanism of avoidance. Same considerations can be made for listening to music – used to withdraw rather than recharge.

During follow up interviews, the student responses echoed the survey responses on the importance of peer relationships as a main stress management tool, but listening to music and playing video games were also frequently mentioned. As one student shared:

If it's in the middle of the week, I probably just play video games with my friends or something. If it's on the weekend, I'll try to hang out with my friends because it will get me happier than just staying home by myself when I'm with my friends, bring me joy and stuff gets me happier.

Surrounding himself with friends was identified as a main stress reduction tool for this student, but he shares that when his friends are not available he tries a breathing exercise but admits when the breathing exercise doesn't work, he resorts to a physical release for his catharsis:

For myself, it's been really hard because I can't hang out with my friends because I'm on punishment right now because with my grades, but I don't know. I was stressed during the time. So, I couldn't really even do anything. So, what I did was I like if I got stressed take a deep breath, try to calm myself down. If not, I'd punch a hole in the wall and then hide it with a picture frame or something. I don't know. Usually, your body just finds a way to release it. Some people do it different ways, but that's just my way. But if I wasn't on punishment, I'd probably hang out with my friends, cool myself down. Yeah, that's really what I do.

Punching a wall may not seem like a good adaptive ability for managing stress, but punching an inanimate object is better than relieving stress at the expense of some other person's physical well-being. For this student, the physical act of breathing or punching a wall serves as a physical release of pressure. He recognizes that something needs to be done to lower his stress thermostat. A concern for this study is that students do not have adaptive abilities to deal with stress. Avoiding stress by ignoring it will not make it go away, particularly stress that students have no control over. A student may mentally feel better but the physical effects are still present and the emotional effects are only delayed until a later time when the stress cannot be avoided any further. For this reason, it is important for students to learn the adaptive abilities that assist them in controlling what they can. The automatic "flight or fight" responses are not an example of controlled adaptation, but instead operate as a survival function and are usually out of the control of the student. In the case of the following student, she shares controllable actions that allow her to manage stress:

I like to clean when I get really stressed. Now that I have my own car, I drive. I go on drives and I take pictures. But being able to escape and not being confined. It usually helps me destress.

While cleaning, driving and taking pictures are healthy adaptive abilities to manage stress, using them are problematic for this student because these activities are not very accessible during the school day when students experience the highest levels of stress. The sensation of feeling confined and not able to escape is problematic depending on the school structure. In the school used for this study, free movement of students is restricted before school and throughout the day leaving very little opportunity to "escape" as a method to manage stress. By "escape" it is not implied that students are avoiding stress as in "flight," but rather are taking advantages of



built in opportunities to control what they can think about and focus on something of their own choosing.

After identifying the adaptive abilities used to manage stress, the students were then asked a question on the survey, *“How do you know that these stress management methods reduce your stress?”* This question was asked with the intention of understanding the connection between a chosen stress reduction method with the perceived well-being of the student. From the 312 surveys completed, 262 students responded to this question. Only two students provided more than one answer resulting in 264 combined responses that were then organized by theme and presented in Table 10.

Table 10

*Summary of open-ended responses to the question; “How do you know that these stress management methods reduce your stress?”*

Theme	N	%	Specific Student Responses
I feel better	86	32.8%	<ul style="list-style-type: none"> <li>• I feel better (x 56)</li> <li>• I don't feel the stress</li> <li>• I feel less uptight and back to my loose-let skills</li> </ul>
I am calm/relaxed	45	17.2%	<ul style="list-style-type: none"> <li>• I feel calmer and relaxed</li> <li>• less pressure, feel calm</li> </ul>
I forget about it	30	11.5%	<ul style="list-style-type: none"> <li>• I forget about what's stressing me out</li> <li>• I don't have to think about it, clear my head</li> <li>• Makes me numb</li> <li>• helps me forget and gets rid of what's putting stress in my life</li> </ul>
I don't know	24	9.2%	
I am happy/I laugh	15	5.7%	<ul style="list-style-type: none"> <li>• I become happy in the moment</li> <li>• I am happy and not worried</li> <li>• I am less stressed when happy</li> </ul>
Physiological response	10	3.8%	<ul style="list-style-type: none"> <li>• My muscles are not tight</li> <li>• Heart rate slows, anxiety decreases</li> <li>• I feel my brain less cloudy, heart rate goes down</li> <li>• because my heart isn't fast beating and I'm more calm</li> </ul>
They don't work	10	3.8%	<ul style="list-style-type: none"> <li>• I feel less tense</li> <li>• they don't, I wake up with the same problems</li> <li>• they don't really, they just let me escape</li> </ul>
I feel more control	9	3.4%	<ul style="list-style-type: none"> <li>• I go through the day without breaking down</li> </ul>

Table 10 (Cont.)

*Summary of open-ended responses to the question; “How do you know that these stress management methods reduce your stress?”*

Theme	N	%	Specific Student Responses
I am not as angry	6	2.3%	<ul style="list-style-type: none"> <li>• music keeps me from being pissed</li> <li>• I don’t snap at people</li> </ul>
I am more motivated	5	1.9%	<ul style="list-style-type: none"> <li>• because I don’t feel anger any more</li> <li>• because I can actually do work at school without feeling tired</li> </ul>
I am less anxious	4	1.5%	<ul style="list-style-type: none"> <li>• makes me feel less anxious</li> <li>• more confident; less anxious</li> </ul>
I have more focus	4	1.5%	<ul style="list-style-type: none"> <li>• I can think clearly after</li> </ul>

*N = 262. Percentages do not equal to 100% because some students provided more than one answer.*

When students were asked how they know the identified adaptive abilities are working, the most common response was the students reporting they “feel better” (32.8%) with no elaboration. In fact, 56 times the student simply answered, “I feel better.” Several students also reported “feeling calmer” (17.2%). Combining those two responses demonstrate that at least half of the students report a positive feeling when they apply their identified adaptive abilities to stress occurring. Although these students did not name a specific physiological response, there is value in acknowledging that the actions they took towards their stress at least makes them feel better. On the opposite end of the stress experience 9.2% of students did not know whether the strategies were even working and 3.8% reported that the responses to stress they use did not work at all.

When interviewed, students provided additional perceptions on the effectiveness of stress mitigation techniques to help them reduce stress. An adaptive ability that works for one student may not work for others because everyone reacts differently to stress. Students are aware that each student needs to find a method that works best for them:

To me, honestly, for a lot of people, they find their own ways to release stress. It's just basically, what I said, it's a personal thing. Some people, you see, do the same thing, eating more. There's also people, who tell you ways to get rid of it, like screaming in a pillow or punching a pillow, or something like that. Honestly, there's some people who just do other things for themselves to make themselves feel better.

The final open response question the students were asked was designed to gain insight into understanding how the students learned about the adaptive abilities they identified. The final question asks, “*How did you learn about these stress management techniques?*” From the 312 surveys submitted, 285 of the students responded to the question. Some students provided more than one answer resulting in 300 combined responses that were then organized by theme and presented in Table 11.

Table 11

*Summary of open-ended responses to the question; “How did you learn about these stress management techniques?”*

Theme	N	%	Specific Student Responses
Myself	108	36.0 %	<ul style="list-style-type: none"> <li>• I just thought of it</li> <li>• Comes naturally</li> </ul>
Experience	70	23.3%	<ul style="list-style-type: none"> <li>• Did it on my own</li> <li>• I just did what works best for me</li> <li>• I learned this from knowing myself</li> <li>• I figured them out myself through trial and error</li> </ul>
Parents	33	11.0%	<ul style="list-style-type: none"> <li>• I developed them over time</li> <li>• My parents suggested it</li> </ul>
I don't know	27	9.0%	<ul style="list-style-type: none"> <li>• I haven't learned any that I use regularly</li> <li>• I'm not sure</li> <li>• You're not taught effective ways to deal with stress</li> </ul>
Friends/Others	23	7.7%	<ul style="list-style-type: none"> <li>• All my friends are stressed as well so I learn to cope from them</li> </ul>
Social Media	9	3.0%	<ul style="list-style-type: none"> <li>• Saw it on social media and tried it out</li> </ul>
Counselor/Social Worker	9	3.0%	<ul style="list-style-type: none"> <li>• The mind explained (Netflix)</li> <li>• Middle school gifted counselor</li> </ul>
School	7	2.3%	<ul style="list-style-type: none"> <li>• Asked my counselor</li> <li>• Health teacher</li> </ul>

*N = 300. Percentages do not equal to 100% because responses less than 2% of survey population are not shown*

The survey responses show the majority of students have learned how to manage stress on their own, either identifying themselves as the source of their technique (36.0%) or by learning it through experience (23.3%). Social Media, school and counselors/social workers collectively accounted for less than 10% of the total responses. When students were asked in follow up interviews about learning stress management techniques, the students continued on the theme of self-determinism: As one student stated:

I feel like stress is you can't really fix it. It's a personal thing you have to overcome. ... stress is always just going to stick to you until you try yourself, try to get rid of it. What I've observed is people, whenever they got rid of their stress, they do it themselves and not another person doing it, helping them or motivating them to get rid of the stress.

In the case of another student's experience with stress, he recognized the role his behaviors played in contributing to the stress:

Personally, for myself, I feel like sometimes it's my fault because our schoolwork is our responsibility, but I just put it off to the side sometimes, and it adds on. They teachers are just... they're giving you the homework that you're supposed to practice, and that goes to the test or quizzes or whatever. Then what you put in is what you get out

Even though there was a recognition by students to accept their responsibility for managing stress, there is still a desire to be checked on by others. Social connections are important for students. As one student shared:

I feel like I can focus. I think your mental health has a lot to do with the stress levels you have in high school. ... I think people dealing with their, not only mental health, but their physical health, and are they at the right place socially, doing what's better for them. That's dealing with the stress of all those factors. Trying to make sure you're okay. Sometimes, you just want someone else to make sure you're okay sometime.

## **Themes from Research Question 2**

- Students are most likely to seek out friends for support when they feel stressed.
- Students do not utilize counselors and/or social workers to manage their stress.

- School-wide implemented SEL programs are not accessed by students for managing their stress.
- The most frequently identified adaptive ability for stress management is listening to music followed by sleeping – both appear to be mainly used for avoidance.
- Students not only want to be around their friends when they feel stressed but they also consider these peer relationships as a stress reduction method.
- Students primarily rely on themselves and their own experiences to learn about stress management.
- Very few students identify available school resources as a method for learning how to manage stress.

### **Research Question 3: How do schools assist students with stress management?**

Teenagers spend a significant portion of their time attending school. Current literature identifies the student of today requiring more than just the “three R’s” of education to successfully navigate high school. More educational focus on the whole child, particularly paying attention to the social and emotional well-being and mental health needs of students have been widely implemented in most current school environments. Stress is unavoidable and remains a part of the high school learning environment, but if the stress is viewed as a challenge that can be controlled instead of an insurmountable obstacle, students can then survive and advance. When stress is managed and controlled, the mind and body can adapt to new challenges and build the resilience necessary for growth. In order for students to experience the positive effects of stress, two things need to be present:

1. Students need to recognize when a stress is occurring and
2. Students need to have the adaptive abilities to manage the identified stress.

As observed through Research Questions 1 and 2, students are reporting high levels of stress and the students have identified adaptive abilities they use to manage stress. However, although the students say they feel better, their stress scores remain high and continue to exceed national norms when compared with other populations. Knowing the reality of high stress among its student populations, schools can step in and create supportive environments to help students manage their stress loads and promote adaptive abilities. In recent years, schools have realized a growing need to create more supportive environments through increased implementations of school wide support programs and hiring practices placing more counselors and social workers in school settings. Yet, despite the efforts of schools to add these additional programs and personnel, students do not appear to be utilizing these resources as a means to manage their high stress levels.

Referring back to the data in Table 8 where students were asked *How much do each of the following people or programs help with you to manage your stress?* students were asked to score the frequency of use for various persons or programs, most of which are available to them at school. Out of 312 total responses to this question, using a Likert scale 0 – 4 (0 = Never and 4 = Very Often) the most frequently identified resource for managing stress was “Friends” (mean 2.58) followed by “Parents” (2.26) and then Teachers (1.44.) However, “Counselors/Social Workers” had a mean of 0.99 and “School Programs” had a mean of just 0.38 and 75.7% of students reported that they never used any school programs for stress management. Figure 3 provides a graphic representation of the results.

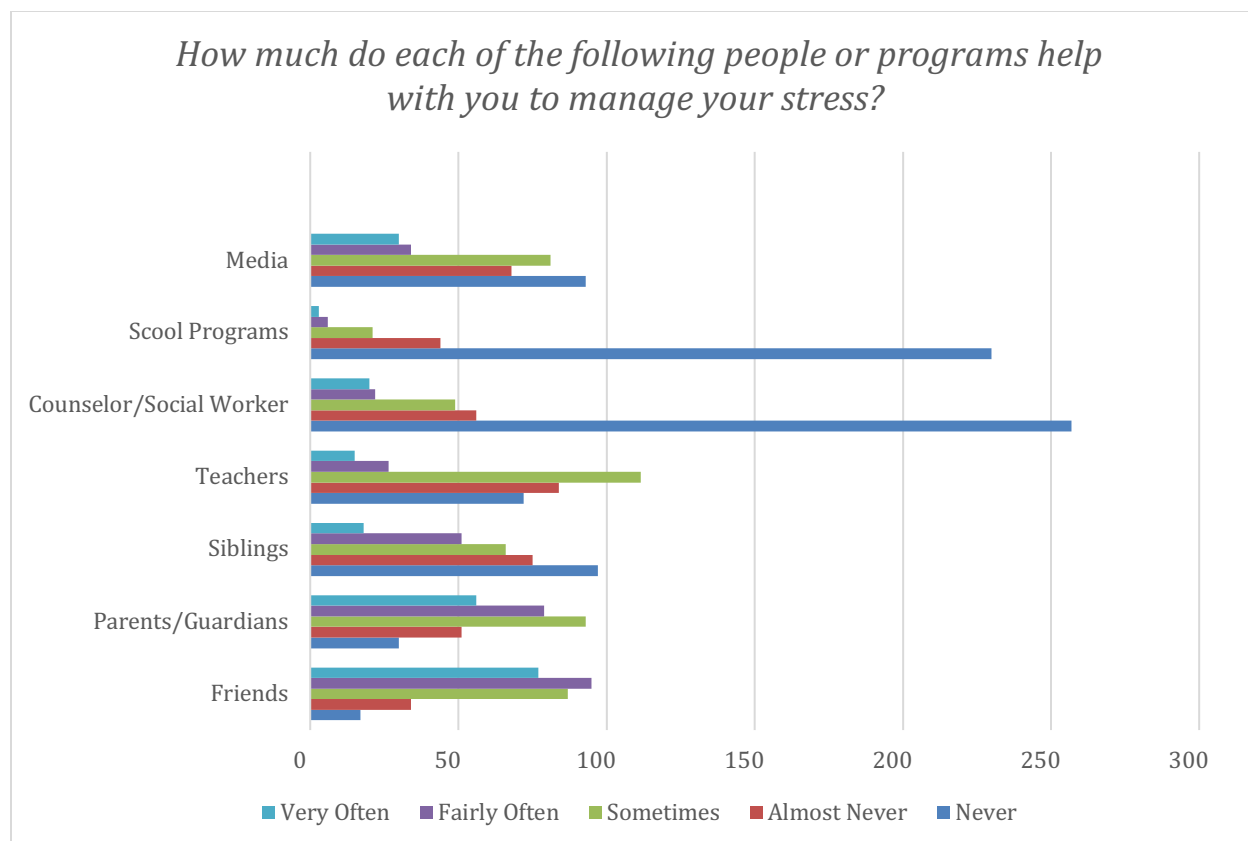


Figure 3. *Likert responses to visually show the frequency of students' use of available resources for stress management*

Figure 3 provides a visual display of the infrequent use of resources offered to students at school. School programs, such as a character curriculum or school-wide support systems, appear to have no memorable impact on the students with regards to their stress experience. Counselors and social workers are seldom utilized as well. However, teachers do appear to be a good resource for many of the students. To explore the impact of the school on helping students manage stress, multiple follow up questions were included during the student interview. Looking back into the literature review research from Chapter 2, one measure that schools have been using to help students manage stress is to add additional personnel such as counselors and/or social workers as a resource for students to access. Yet as discussed, data from the survey (Figure 3) surprisingly shows that students are not tapping into this resource. A reason for this lack of use may be caused by barriers preventing students from accessing these resources. For

example, trust or a lack of familiarity with personnel are the frequently cited reasons for these resources not being used by students. As one student explains:

I feel like I could probably talk to my counselor more, but I don't know. Sometimes, I just don't feel comfortable with telling him stuff...but I don't really know [why.] There's only a couple of those [adults] that I really trust, especially, my mom. I can tell her everything, but I don't know, it's just how I am. Some of my friends, too, I'll tell whatever, but I don't know. I mean sometimes I tell my counselor stuff. Well, my counselor switched. So now, it's just this girl that I don't even know. She's nice and stuff, but-

Another student shared a frustration about access to her counselor which also caused distress. Rather than having the freedom to speak with the counselor she is most comfortable with, the school restricts students to their assigned counselors. The student shared that she felt “a lot of pressure to just talk to your specific counselor, like [another student] said, counselors have switched this year. So, meaning, there's new faces.” Other barriers to access resources at school is a restriction in freedom. School safety is a common issue on school campuses and one method schools use to keep campus safe is to restrict student movement throughout the day. Students in this school cannot be outside of their classrooms without a pass and passes in general are highly restricted. As one student shared:

With the passes, we have restrictions on those now. Usually, you can just ... head out. Well, you have to have certain passes to and from wherever we're going. If not, we have to have an escort or something. If I wanted to go talk to this teacher, I can't really do that.

A positive from Figure 8 is that students do indicate the importance of having trusting relationships with teachers as a method for addressing their stress and this was also a common theme during the follow up student interviews. Says one student:

Some of my teachers, they can tell if I'm stressed or something. I have my head on my desk next to me, and they're like, "You all right" and stuff. I'm just like, "Yeah." ... They'll come up to me more nice. I know they're trying to approach me. They want to talk about it or something. I was like, "Nah, I'm okay," not because I don't want to tell them anything. Just because I feel like I'll be all right.



The theme continued with another student's perspective through sharing the important role teachers have towards teen stress while also cautioning that while teachers have the capacity to reduce stress, other teachers can actively increase it:

I feel the same way. Some teachers do really try, especially, when they do notice that you're just not yourself. Some of them do try, but others, it seems to us, that they may just be putting on work and work, and trying to get us to do all these things and be involved. But when we're so stressed and overloaded with work, it's just hard to do that.

The school used for this study was in the process of a substantial, multi-year bond renovation to the entire campus. The majority of current students will have graduated before the campus is complete, but the presence of the renovation process allowed for students to reflect on new physical changes a school could add to help with stress management. A common theme in this area was a desire to have private spaces, where students could break from the regular school environment to either work independently or with small groups of people. As one student shared:

I think that, like now, we have the new renovations. I would try to incorporate different areas that students could go in, of course, somewhere where they're not just in there by themselves, but little safe rooms that they can just go in and get their work done, or whatever they need to do for short amount of time, or try to reach out to people.

In addition to physical changes in the school, students also suggested that there are structural changes that a school can make to help students manage stress. A break in the day, where there is no academic mandate during that time period, would provide students with the freedom to manage their stress load. One student shared an experience from a previous school he attended where students were given a break in the day and explained how this break benefitted him by providing freedom to manage his own time during the day:

At my other school, when I lived in Missouri, there's this thing between fourth and fifth hour. ... just an hour for students for themselves. When I was there, I used it for homework and stuff. I didn't really have anything else to do, I didn't have any friends or

anything. So, when I just need to get stuff done, I would use that. Just go to the cafeteria and get my lunch. ... Yeah. Some kids used it to just catch up with their friends or talk.

As students were asked more specifically about the role that schools can play in helping them manage stress, the students began to share personal stories of frustration they have experienced at school. Little things that may not seem critical in the moment to the teacher, but can be stress inducing for the student. For example, one student shares his experience with transitioning into a new class and the frustration of not having his grades up to date:

... some of my classes now still haven't excused my work from unit one or two, especially, in my algebra class that she hasn't done that yet. So, I just need it. We're on unit five right now and deal with all of that. Plus, trying to get to unit one and unit two. It's just hard. It brings me a lot of stress, especially, that class. That class is pretty hard.

One student pointed specifically to a frustration with the role of the counselor. In his view, he felt like his counselor should be doing more specifically with stress and stress management instead of focusing on scheduling and checking credits for college admissions. His comment:

... you could say the school, but I think it's mostly the counselor. So, a lot of our counselors, they don't talk to students as much. They're just focused on students' schedules and their activities and college plans. They don't really talk about things that are going on with them, stuff like that. There's some people, who come in and sit down and talk to you, but counselors, personally, they don't help with your stress. If you had a favorite teacher, they probably would ask you about what's going on? Are you good? Stuff like that.

Having a teacher the students like and trust continued to be an important theme for them, but having the time and freedom during the day to interact with these teachers as a means of stress management is met with barriers. Even without a set time during the day, students that want to take advantage of time before or after school to meet with teachers have to deal with roadblocks that not all students have to face. Shares one student:

After school, I don't really have time to get that bond with teachers. I got to go home and go to work. So, I wish I could stay after school, get stuff done and getting... I wish I could

come before school, but just waking up that early, that's just hard because I have to... I get home at 9:30 or 10:00. Then I got my chores that I have to do. Then like 11:00, sometimes. So I'm waking up at... because the only way I would get here before school is I take the bus. The bus leaves at 7:07. I usually leave at 7:30. So, there's the extra time that make me feel like, I don't know. It's definitely worth it, but it's just hard. It's hard to get up.

Even with all of the resources available at school, there remains a recognition by the students of a need to take an active role in their own stress management. As one student sums up:

Personally, for myself, I feel like sometimes it's my fault because our schoolwork is our responsibility, but I just put it off to the side sometimes, and it adds on. The teachers are just... they're giving you the homework that you're supposed to practice, and that goes to the test or quizzes or whatever. Then what you put in is what you get out.

### **Themes from Research Question 3**

- Current school-wide programming is not identified as a helpful resource to assist students in managing stress
- Although schools have hired additional support personnel, students are not accessing this resource for stress management
- Teachers are a frequently identified school resource for managing stress.
- Students prefer to have access to private spaces during the school day to work by themselves or in small groups.
- Counselors are too busy with academic responsibilities to provide students with stress management assistance.
- Students value positive relationships with teachers and want more access to trusted teachers during the day.

### **Chapter Summary**

The students stress perception survey and follow up interview questions provided qualitative and quantitative data. This data was then organized and presented to address each research question. For each research question, quantitative data from the survey was presented first, then qualitative narratives from the interviews were added to further explain the perceptions of students concerning stress and their school experience. Themes were identified at the conclusion of each research question that will be discussed further in Chapter 5.

## **CHAPTER FIVE – CONCLUSIONS AND IMPLICATIONS**

### **Introduction and Study Overview**

This study emerged from the problem of practice of students experiencing stress as a part of the high school experience. Every living being experiences stress but concern for the high levels of stress and few effective management techniques reported by teenagers is what drove this study. Both the teenage mind and body experience critical formative development during this time frame that can be permanently altered when prolonged, unmanaged stress remains constant. Of critical importance to this study was to capture the voice of the students on this subject so their words and perceptions could be shared and better understood. Schools can examine attendance and academic data and combine that information with teacher observations of student behavior to gain an understanding of what students are experiencing, but those data points only tell a portion of the high school experience for teenagers. When students were given the opportunity to describe the stress they experience on a daily basis, their responses should serve as a wake-up call for schools to find better ways to understand this phenomenon. In the case of the school used for this study, the district has been proactive in adding social and emotional resources to the district, including a school wide system of supports and behavioral screeners completed three times a year by teachers. The results of these screeners presented an overall healthy picture of the student body, but these results lacked a critical element to truly understand the mental, physical and emotional well-being of the students, that element being the students' voices. Once the students' voices are added to the data, the narrative changes from a picture of a healthy student body to one that is highly stressed and lacking well-defined adaptive abilities with no plan to use available school supports to help manage stress. This recognition came about through the exploration of the following research questions:

1. What stress do students report experiencing?
2. What are the adaptive abilities students identify and utilize to manage stress?
3. How do schools assist students with stress management?

### **Summary of Findings**

The school used for this study is representative of other schools throughout the state of Kansas. While the student population is large, the student demographics are comparable to the state means. Minus a comprehensive study of community influences or school programs, the study assumes that the stress data in this study would be reflective of other school communities. Overall, students report high stress levels with few adaptive abilities to manage stress other than hanging out with their equally stressed peers or listening to music, which largely serves as a method of avoidance for students. Additionally, several themes emerged during data analysis that were identified and will be expounded upon in the following sections.

#### **Themes Expanded from Research Question 1**

- Current tools used by schools designed to measure student behaviors associated with stress do not accurately reflect the experience of the students.

This study used a school-wide behavioral screening tool as a base line for stress levels of students. In absence of a stress test given to students, the SRSS tool used by this district allows teachers to report on observed behaviors. In this school, the SRSS scores show that only 20% of the student body exhibits behaviors requiring additional supports beyond the school-wide supports in place. However, when students were directly asked about stress levels, their answers present a student body that is highly stressed with scores exceeding normed populations. It also demonstrates school wide systems of supports are not accounting for the high stress levels of

students. Schools need to provide avenues for students' perspectives to be captured to ensure that supports are being allocated to where students need them the most.

- When high school students are provided the opportunity to report their stress levels, their results outpace other normed demographics.

The study of teen stress is a recent phenomenon that largely came to light following a 2014 APA national survey with results showing students outpacing adults in stress scores.

Additionally, the student stress perception survey used in this study continues that conversation on high stress for teens as the average stress score amongst participants was nearly twice as high as normed adult scores from 1983, 2006 and 2009. The results from these surveys emphasize the need for schools to include student voices in decision-making as teacher perception is not always the student reality. In this case, existing data suggests students are functioning relatively well but the additional data from the perspective of the student presents a different story.

- Students can identify stress occurring by identifying how it affects their mood and changes their behavior

A positive from the study is that students can identify physiological changes when they are stressed. Being able to identify stress acting upon the body does allow for the student to use adaptive abilities to manage stress, provided he or she has effective management techniques. If adaptive abilities are available, students can be more proactive in their stress management instead of just letting it continue to affect their physiology and emotions.

- Students notice their friends experiencing stress by observing changes in their behavior.

Students like to find comfort in one another when they experience stress so it is promising that students are aware of when their friends are experiencing stress as well. The goal is to help students identify and manage stress so it is helpful when students can recognize it in others so

that students can scaffold healthy adaptive abilities for managing stress. A problem of course remains that students who are stressed may not be the best resource for other students who are stressed but at least there is a feeling of shared understanding about the stress experience.

- Academic stress is identified as the leading cause of stress for high school students.

It is difficult to separate the high school experience away from academics. The role of the high school hasn't changed much since schools evolved from one room school houses. Students are assigned coursework primarily based upon local and state graduation requirements and then the students enter into a four-year contract where they exchange school work for grades at the behest of a teacher. The grades accumulate over time into a ranking system. Where a student ranks can have an impact on what decisions that student can make after the four-year experience is over. Some of the work is meaningful and some of the work is not, but it is all required to be completed. Some students have jobs outside of school, some students do not. Some students have reliable food at home, some students do not. Some students go home to a stressful environment every day, some students do not. Academics are the leading cause of stress for teens because academics often interfere with the ability for teenagers to just be teenagers. Schools can reduce the stress caused by academics by encouraging teachers to take active roles in building relationships with students so that meaningful academic experiences can be delivered.

- When elaborating on academic stress, the perceived lack of available time to get everything completed adds to the stress load.

Students may feel that they have little time for lives outside of school, especially those who work part time and attempt to balance school. If the academic material is not meaningful to the student, but is required for a grade, then it is easy to see why academics can be stress inducing.



Time is a finite resource meaning that spent time can never be recovered. Students who crave social or family interaction but also work part time have very little time available for academics. Time spent studying requires sacrificing family or friend time and if the academic work has no meaning then the stress of lost opportunities begin to take their toll. This is not a statement to advocate for work avoidance, rather it is opportunity for schools and teachers to examine their own practices of how they manage students' time beyond the school day with academic work.

- The structured pace of the school day restricts independence and causes stress.

In this study, the schedule of the school day did not allow freedom for students to seek non-academic time when they needed it. The only break during the academic day is five minutes between class and a 25-minute lunch period where students are not allowed to leave the lunch room. While they are allowed to leave campus for lunch, they are not allowed to return during their lunch period to any other location other than the lunch room. Basically, the students' schedules are managed for seven hours a day and as previously discussed, their evenings and weekends are managed too based on the amount of additional academic work required by teachers.

- Teens are highly stressed

Based upon presented PSS results, this study concludes that high school students are highly stressed. This conclusion is made based on the aggregate PSS of 22.5 for students who completed the student perception survey and comparing the PSS to other normed scores. Efforts were made to depict the school used in this study to be representative of a typical high school in Kansas, meaning that similar scores could be expected if the survey was presented to other schools. In addition to the PSS scores collected in the survey, other student characteristics were collected which allowed for additional findings about the student high school experience and

stress. Although students identified academics as their main source of stress, the following tables contain some interesting student characteristics and their relationship to the high school stress experience.

Table 12  
GPA vs. Perceived Stress Scale (PSS)

GPA	N	PSS
< 2.0	22	25.3
2.0 – 2.5	30	26.1
2.5 – 3.0	52	23.6
3.0 – 3.5	66	21.7
3.5 – 4.0	103	21.1

When PSS scores are isolated for GPA, students perceived stress levels decrease as student GPA increases. A one-way between subjects ANOVA was conducted to compare the effect of GPA on stress levels for the following categories: (< 2.0, 2.0-2.5, 2.5-3.0, 3.0-3.5, 3.5-4.0). There was a significant effect of GPA on stress levels at the  $p < .01$  level for the five conditions [ $F(4, 268) = 3.71, p = 0.0051$ ]. The result is significant at  $p < .01$ . Taken together, these results suggest that stress does have an effect on GPA levels. Specifically, results suggest that students who struggle academically correlate to having higher stress levels. Students with higher GPAs may feel less stress as seniors because higher GPAs generally translate into better post-secondary opportunities such as higher likelihood of college admissions and increased scholarship amounts. However, Kansas in 2019 reduced the GPA requirements for admission into its six public universities meaning lower GPAs have an attainable pathway to four-year colleges that previously was not available which may lead to a reduction in future stress scores.

Table 13  
Grade Level vs. Perceived Stress Scale (PSS)

Grade Level	N	PSS
9	52	18.8
10	74	22.2
11	55	21.7
12	118	24.5

When PSS scores are isolated for Grade Level, student perceived stress levels increase as students increase in grade level. A one-way between subjects ANOVA was conducted to compare the effect of Grade Levels on stress levels for grades 9, 10 11 and 12. There was a significant effect on Grade Level on stress levels at the  $p < .01$  level for each grade [ $F(3, 295) = 7.59, p = 0.00006$ ]. The result is significant at  $p < .01$ . Taken together, these results suggest that Grade Level in high school does have an effect on stress levels. Specifically, results suggest that students will increase in stress levels as they advance from grade to grade. If schools are implementing stress management programs for students, these results show that they are ineffective since stress scores are increasing over time. More stress can be expected as students move into upper grades and knowing this, schools should be more proactive in addressing the stress needs of students as they matriculate from grade to grade. The high stress scores for seniors may reflect the uncertainty about leaving the safety net of the high school. This survey was conducted in the fall which is when many seniors are in the process of filling out applications, taking ACT tests, making college visits and just figuring out what they want to do. I believe high stress scores in the fall of a senior year in high school would be normal which indicates the need for schools to focus on developing adaptive abilities well in advance of the senior year. A good focus of future research would be to capture these scores again in the spring

after most students have acquired the information to decide on what their post-secondary plans will be.

Table 14  
School Connectedness vs. Perceived Stress Scale (PSS)

Connectedness to School	N	PSS
Not at All	31	27.7
Slightly	58	23.5
Somewhat	134	21.9
(Moderately)		
Very	72	21.2
Extremely	12	20.5

When PSS scores are isolated for School Connectedness, students' perceived stress levels decrease as students feel more connected to their school. A one-way between subjects ANOVA was conducted to compare the effect of school connectedness on stress levels for grades Not at All, Slightly, Somewhat, Very and Extremely. There was a significant effect on Grade Level on stress levels at the  $p < .01$  level for each grade [ $F(4, 302) = 4.84, p = 0.0009$ ]. The result is significant at  $p < .01$ . Taken together, these results suggest the student's perceived level of connection to high school does have an effect on stress levels. Specifically, results suggest that a greater connection to the school will result in much lower stress scores. Here is where schools have an opportunity to evaluate what the high school experience is like for their students. Clearly, if the student does not feel a part of what is going on, the student is going to feel more stress; schools should be proactive in knowing every one of their students to build connections.

All of this data combines to define the problem of high stress levels for high school students. The additional tables provide further examples of elements that contribute to the stress experience for teenagers.

## **Themes Expanded from Research Question 2**

- When students seek out other people for stress management, they are most likely to interact with their friends.

Being with friends during times of stress was a popular response both in the survey and in the follow-up interview. Students should be encouraged to be with other people when they are stressed, even if it is their highly stressed peers. As previously discussed, students withdrawing to be alone is a concern because when students are alone, their thoughts aren't going to help them overcome their stress. They say they feel better and once in a while there may be a moment of relief, but most times, being alone is going to cause unhappiness and an inability to manage stress. Even if the stress seems out of control, spending time with friends doing fun things like playing video games is a good way to make sure that the negative feelings associated with stress are not overwhelming.

- Students do not utilize counselors and/or social workers to manage their stress.

The initial results to this question were surprising because adding these types of personnel to schools has been a major area of focus in many school districts. However, a “build it and they will come” mentality does not seem to be a good strategy for putting stressed students in contact with these trained adults. The follow-up interviews with students have helped to identify some of the barriers preventing students from accessing these resources but the bottom line is that these professionals need to actively seek out the students and establish connections instead of waiting for the students to find them first.

- School-wide implemented SEL programs are not viewed as a resource used by students for managing their stress.

The school in this study was using scheduled time during the school year to implement a character curriculum. The curriculum contained 16 lessons that were taught throughout the school year. The lessons focused on personal decision making and included lessons on anxiety, depression and stress management. Despite offering these lessons as a part of the school experience, students did not rate these programs high as a resource for managing stress. Students do not report a strong connection with these school programs as a means for stress reduction.

- The most frequently identified adaptive ability for stress management is listening to music followed by sleeping – both appear to be mainly used for avoidance rather than as a method of self-soothing.

As mentioned, music is often listed as a stress management tool but the study is not clear on whether it is used as a method of avoidance or as a true adaptive ability. Follow up interviews to the survey suggest that these methods are used as a means to get away from other people and withdraw. Students do mention sleep as a method of stress management but even though research points to the physiological benefits of sleep, sleep for teens appears to be used as an avoidance method as well.

- Students not only desire to be around their friends when they are stressed but they also identify these peer relationships as a stress reduction method.

The power of friend groups is mentioned often both in the survey and through the interview. When students are stressed, they repeatedly mention the importance of friends as a resource. More research should be done to compare the benefits of associating with stressed peers as opposed to being left alone, but since suicide happens in isolation, I prefer to take the risk of having students be with their equally-stressed friends as opposed to being alone and isolated with their thoughts.

- Students primarily rely on themselves and their own experiences for learning about stress management.

If teen stress is as insidious as this study claims, it is preposterous to expect students to have all the answers on how to manage it. Sadly however, that appears to be the case as over half of the students surveyed said that they rely on themselves or past experiences to manage stress.

Essentially, most students state they are on their own trying to prevent stress from unleashing its damaging effects. Unmanaged stress has been shown to have devastating effects on the social, emotional and physiological well-being of individuals so for teenagers still in their

developmental years, it is even more critical to have well-formed adaptive abilities at this age.

As the PSS demonstrates, stress is increasing over the duration of the high school experience which means the self-taught stress methods students are identifying are not highly effective.

Perhaps the argument could be made that the scores would be even higher if the students were doing nothing to manage their stress but looking at data from this study, of the 36 students who specifically identified a physiological adaptive ability such as breathing or meditation for stress reduction, they only scored a PSS 22.0 (SD 7.7) which is not far off from the overall student stress score of 22.5.

- Very few students identify available school resources as a means for learning how to manage stress.

Schools are recognizing the need for additional supports for students and are investing resources in programs and personnel to help students. Unfortunately, the data from this study showed that students were not accessing these resources and instead, relying on themselves and their friends to handle stress. This is a missed opportunity for schools that needs to be reevaluated.

### **Themes Expanded from Research Question 3**

- Current school-wide programming is not identified as a helpful resource to assist students in managing stress

The school in this study implemented a school-wide intervention program with positive behavior supports and a school-wide curriculum that included a character curriculum containing lessons on student issues like stress, anxiety and depression. To implement this curriculum, the school adjusted school schedules to dedicate time to this instruction. To do this required stealing time from the established seven period day that would otherwise be used as academic time. Despite the efforts to make this instruction a priority, the results from the student perception survey show that this initiative does not resonate with students, at least when it comes to addressing and managing stress levels.

- Although schools have hired additional support personnel, students are not accessing these resources for stress management.

Personnel is an expensive investment by any school district and because of limited funds, hiring in one area usually means a reduction of staff in another. This school has budgeted to add an additional social worker and counselor to the building in recognition of the growing levels of anxiety and depression. Even though the SRSS do not show high levels of stress and anxiety throughout the school, there are identified students that need the additional resource that a social worker or counselor can provide. However, the presence of these additional staff members appear to be underutilized for the district as students have much higher stress scores that reported in the SRSS and those students are not accessing these services. The students in this study identify a lack of familiarity with the support staff as a reason this resource is not utilized.



- Students prefer to have access to private spaces during the school day to work by themselves or in small groups.

A theme that emerged during follow up interviews was a desire for students to have some control about areas in the school they could access where they could break into smaller group or work by themselves. Most school designs, including the renovations for this school, have break-out spaces being created throughout the building. A break out space is usually a repurposed area of a hallway outside of a classroom with comfortable seating and a work area that are open to all students. With the addition of these breakout spaces, it would be good to follow up with students after the renovation is complete to determine how the breakout spaces are being used and whether this additional work space has a positive impact on the stress experience for students.

- Counselors are too busy with academic responsibilities to provide students with stress management assistance.

Another barrier for students accessing counselors for stress management was the demand on the counselors' schedules to focus on academic responsibilities instead of the mental and emotional needs of the students. Part of this demand on counselors' times come from the state of Kansas requiring an Individualized Plan of Study (IPS) for each high school student. According to KSDE, an IPS is both the actual product a student develops and a process the school implements to guide students in developing their unique IPS that includes at a minimum, the following four components:

1. A graduated series of strength finders and career interest inventories to help students identify preference toward career clusters.
2. 8<sup>th</sup> through 12<sup>th</sup> grade course builder function with course selections based on career interests.

3. A general postsecondary plan (workforce, military, certification program, two-year college, four-year college).
4. Portable electronic portfolio. ([www.ksde.org](http://www.ksde.org))

In this school, the school uses a counselor-centered model for the implementation of the IPS resulting in counselors losing available time due to management of the IPS. The ratio for this school works out to about 400 students per counselor. A school could use other methods for implementing and managing IPS such as implementation at the classroom level, but this school lacks a homeroom or advisory period that would allow time to monitor the IPS. Because of this, the IPS process is left to the counselors which creates less available time to assist students in stress management.

- Students value positive relationships with teachers and want more access to trusted teachers during the day.

The strength of teacher relationships remains important for students to manage stress. Data from this study has shown that stress decreases as academic achievement increases and one of the greatest contributors to academic success is teacher relationships. Research suggests that the quality and nature of the relationships teachers have with their students has a larger effect on student outcomes than socio-economic status or professional development and “It is teachers who have created positive teacher student relationships that are more likely to have the above average effects on student achievement” (Hattie, 2008). Professor John Hattie is most notable in education circles for using meta-analysis to determine various effect sizes of programs related to student achievement. For example, student/teacher relationships have an effect size four times greater than teacher content knowledge. Despite studies that show teachers having high stress levels as well, the ability to form positive relationships with student not only helps

students' achievement but also helps students lower their stress thermostats. Perhaps there is a symbiotic relationship between the stressed teacher and the stressed student but still, it is encouraging to have students identify the important role teachers play in their high school experience. School need to continue to examine and implement ways to strengthen teacher and student relationships and eliminate the frustration students have when they are not able to access trusted adults during the school day.

### **Connections to Problem of Practice**

A popular area of research for school settings is the increasing realization that students are needing more than just academic supports. The wording, "social and emotion learning" has been used frequently as a catch all phrase for the myriad of issues that students are managing in today's school environment. Identified increases in anxiety, depression and suicide-ideation are creating school climates where leadership has developed school-wide systems of support specifically targeting these elements of a student's psychological mindset. Even state governments, such as Kansas are now mandating that schools demonstrate social and emotional supports as a part of the state-wide accreditation. The need for increased social and emotional learning is not disputed in this study. However, for this study, the research focused on an additional student issue that is often over-looked. This problem of practice in this study dealt with stress and more specifically, the ways in which students identify and manage stress.

Stress has been shown to interfere with learning and although we may think that stress is only an adult problem, research has demonstrated students are just as vulnerable to stress as adults. The genesis for this study began through my experience as a practitioner in the field of education for over twenty years. Through this experience, I have had the opportunity to interact with a multitude of teenagers as my entire tenure has been spent at the high school level.

Through working with students who represent all facets of life, conversations about their academic and emotional well-being often involved the use of the word “stress.” As students would try to explain why they were struggling in school or their behavior had suddenly changed, they would often just answer, “I don’t know, I’m just stressed.” Based on this anecdotal evidence, I wondered if students actually knew when stress was impacting their well-being and whether they could manage it. Are they actually experiencing stress or are they just saying, “I’m stressed” because it is a convenient expression to explain away virtually any change in behavior? Answers to this question were hard to find because assessing students specifically about stress is not usually a school programming priority. Fortunately, though, the American Psychological Association included teenage responses in their national stress surveys and in 2014, the survey reported teenagers as being more stressed than adults. Additionally, this survey reported that of the teenagers surveyed, 42% admitted they were not doing enough to manage their stress. This national data combined with my personal experience with students and stress is how this study emerged.

Adults, when stress occurs, have the ability to manage stress in ways that are not readily available to students. Adults may be able to take a day off from work or adjust their schedule to free up some “me time” before diving into work. In some cases, a stressful work environment can be eliminated by changing jobs or maybe there is some discretionary money to be used for a long weekend at a spa. An issue for teens is that many methods adults utilize for managing stress are not immediately as accessible to them as they might be for adults. School days are highly structured, with little time to take a break for “me time.” Taking a day off from school to manage stress usually means more work to do upon the return to school. It might be common for adults to disregard the stressful feelings of teenagers by minimizing the students’ experiences

when compared to their own, but the data speaks for itself on how students are viewing their high school experience. Whether the experience of students is accepted as real or exaggerated does not matter. What matters is students are assisted in identifying when stress is occurring and are then provided with the resources and opportunities to manage the stress. Learning these self-preservation methods early can help students prepare for a better experience as they begin to bridge into adulthood where stress tends to increase. Colleges have begun to report increased mental health problems from students and are seeing young adults less willing to take on personal responsibility. Also, a report claiming 1 in 10 college students have attempted a suicidal act should be a jarring enough statistic for communities to start examining and understanding stress at much earlier ages.

As a part of this problem of practice, the study looked to understand what adaptive abilities students were using to manage stress. Nearly every student identified experiencing stress of some kind but most could not identify specific physiological or mental remedies they used for stress management. Listening to music as an adaptive ability was a popular answer cited by nearly 25% of students surveyed, but when those student's stress scores are isolated from the rest of the student population, the PSS is higher at 24.1 (SD=7.0). Sleep was also a popular answer for stress management but their PSS was identical at 24.1 (SD=6.8.) The students may say that the music or sleep allows them to feel better but the PSS scores are unaffected and may simply indicate that the chosen activity serves as a distraction from managing the stress and does not really work to reduce it; only delaying the eventual effects. Even though students may want to listen to music constantly or sleep all the time, at some point the nature of the teenage experience in the school environment requires social interaction. Data collected on adaptive abilities for managing stress confirms this need for social interaction.

Students may be living in an ever increasing digital and virtual world that is void of social interaction, but the student survey data and follow up interview indicate that they are dependent on peer relationship for stress management. It is not clear whether this peer interaction works to reduce stress or if there is just some comfort in “shared suffering,” but students often indicated the importance of having time to interact with friends. However, the PSS scores of students identifying “friends” as an adaptive ability (PSS=24.0, SD=7.0) are the same scores (24.0) as the students indicating music and sleep which again, most likely indicates peer interaction serves more as a distraction than as actual stress abatement, but at least they are not alone to deal with their stress. Unfortunately, when comparing low PSS and high PSS scores, there is no single adaptive ability that dominates either domain, which although frustrating, does confirm the identified problem of practice of students not having adaptive abilities to manage stress, well at least not ones that consistently lead to lower stress levels.

As reflected in the title, the ultimate goal of this study was to determine ways for students to develop their own healthy stress thermostats in order to survive and advance in high school. While the concept of having to “survive” high school may come across as a harsh statement, the reality is that mental health issues, depression and suicide amongst high school teenagers continues to rise and the problem of practice for this study shows that students are ill-equipped for the high stress levels they experience. A home relies on a thermostat to regulate the air temperature and a malfunction renders it unable to properly communicate with the heating and cooling equipment, causing the furnace to stop producing heat or to produce erratic amounts of air more frequently than is necessary. The stress thermostat does the same by recognizing the internal stress temperature and telling the body to react accordingly. Looking at the survey and

interview data from this study, it appears that for the average high school student, their stress thermostat needs a maintenance overhaul.

The final element of this problem of practice concerned the school and its role in helping students to manage stress. If students have broken stress thermostats, the school is in a perfect position to help repair or replace thermostats and assist students in managing stress. Because students are required to attend school and the school has complete autonomy over the structure of the day, opportunities at schools to provide avenues for students to develop adaptive abilities for stress management are only limited by the schools themselves. Through examination of this problem of practice, some of these school limitations have been identified. For one, schools are not aware of the stress levels of students. In the case of this study, the school used a valuable school-wide screening tool for measuring observed behaviors, but the data from these screening tools do not accurately reflect the perception of students. The screening data presents a population of students who are mostly benefitting from school-wide supports, whereas the stress perception survey from students presents a different picture. Another limitation comes from schools' efforts to keep safe and orderly environments. While the premise of a safe and orderly environment is good by design, keeping a school climate calm and stress-free through increased restrictions may actually cause more stress as students no longer have the freedom to relax on their own or find the time to interact with a trusted adult.

### **Connections to Literature Review**

The literature review informed the design for this study by describing the dangers of prolonged stress on the physical, social and emotion well-being of a person and in particular on teenagers. Teenagers are at a greater risk for long-term damage from stress due to the physiological and emotional changes that occur during adolescence. The literature review

identified four aspects of the teenage experience in order to identify the greatest source of stress for teenagers. Also, existing available information on teen stress was used to identify the adaptive abilities teens use to manage stress. The literature review outlined the positive effects of stress from sleep, nutrition, exercise and mindfulness but the majority of students surveyed chose different ways to manage stress. Additionally, schools with stress management programs were identified and included in the literature review. This information framed the research questions and directed the study towards understanding the stress experience for teenagers.

### **Connections to Conceptual Framework**

The results from the survey and follow-up interviews match the literature review in identifying that stress causes physical, mental and emotional problems. Students could identify changes in behavior when stress was occurring and they could also observe it in their peers. People are predisposed to specific types and timing of stressors that activate a vulnerability (the diathesis) resulting in the development of depression or anxiety. As such, some individuals are more vulnerable than others to develop a disorder once stress has been introduced (Monroe and Simons, 1991). For that reason, part of what this study looked to determine was the amount and type of adaptive abilities students were using to manage stress. Rather than experience distress due to a lack of adaptive abilities, this study was hopeful that specific adaptive abilities could be identified that would be transferable to all students. Unfortunately, the results were mixed, which is a kind way of saying that the identified student methods for managing stress were all over the place. Sleep, nutrition, exercise and mindfulness have been shown to be powerful stress reducing adaptive abilities but were seldom mentioned by students. The primary adaptive abilities mentioned by students, such as listening to music, did not reduce the PSS for students even though the students reported they felt better. A possible reason for the adaptive abilities not



working for students is because the students have relied on themselves to figure out how to manage stress as opposed to being taught effective strategies or provided structure where adaptive abilities can be used. Selye mentioned Stage 3 GAS Theory being the stage of exhaustion when struggling with stress for long periods of time can drain a person's physical, emotional, and mental resources to the point where the body no longer has strength to fight stress (Selye, 1936.). Although Selye was focused on adults, present research on teens (increased anxiety, depression, suicide ideation) points to a population of students who are not adapting to stress and are hitting that Stage 3 point of giving up or feeling like their situation is hopeless.

Vygotsky's Zones of Proximal Development provides a method for students to develop adaptive abilities but it requires a knowledgeable adult with stress management skills beyond that of the student. Teachers have an opportunity to provide this skill by modeling adaptive abilities but research has shown that teachers are also stressed. What is needed then is for the school to recognize the importance of the relationship between teachers and students so that structures can be designed to support the teaching and practice of stress management for both groups.

### **Implications for Practice**

This study aimed to understand stress and determine the methods students have developed to manage stress. The study also sought to gain insight as to how schools assist in managing stress. Based on the data gathered from this study, the students who provided information about stress are reporting high levels. The study made efforts to show that the school used for this study is reflective of other school populations in the state of Kansas meaning that these results could be reflective of student perceptions beyond just this community. In addition to reporting high levels of stress, the students also report that their methods for

managing stress are learned primarily through experience. The data also shows that these learned adaptive abilities are doing very little to adjust the stress thermostat to a lower level. This is where schools have an opportunity to step in and support their students better. Schools should continue to be mindful about hiring staff specifically trained to help students with stress management but efforts need to be made to ensure that students are familiar with staff and that staff are accessible. As presented in the data of Chapter 4, students are willing to talk to counselors and social workers but they lack trust and the freedom to access their services. Schools can address this structurally by allowing time at the beginning of each semester for this support personnel to get into classrooms and introduces themselves and explain the type of services they can provide. They can also provide information on how their services can be accessed. Support personnel do not have the luxury of getting to know students daily in a classroom. They need to be visible to the student body beyond just their counseling offices. Getting involved sponsoring groups, coaching, attending events are all ways that staff can expose themselves to students and students can begin to trust these individuals. In addition to allocating academic time for support personnel to access the student population, schools need to examine other school structures that can benefit students with stress management. For one, students repeatedly mention the need to have freedom during the day to visit with adults as needs arise or they need the time to just “take a break”. Also, schools need to examine the level of work or homework that is essential for understanding the concepts in the classroom. Time that students take out of their evenings is time that these students will not have available to be with family or peers. For those students that work, the window of time for peer and family interaction is even less. A remedy for this would be for schools to provide a study hall or similar academic period during the day where students can complete work that was not completed during class time. This

does beg the question of how efficiently teachers are using their class time which is an area that schools need to always examine. Organized and pointed classrooms with clear objectives will help classrooms make sure they are providing essential lessons that value the time of the students. Exercise is important to the physiology of stress management but physical exercise is not required outside of one semester of school. Physical exercise should be required every semester. Not some physical education class where students learn the history of every sport created and then have to run a ten-minute mile to pass the class. Rather, the physical exercise should be meaningful and deliberately designed to teach life-long adaptive abilities for destressing. The importance of the relationship between students and teachers remain an important component of the high school experience. Schools need to continue to foster those relationships through deliberate professional development on relationship development.

Students have a role to play in this stress experience this as well. As reported in the data, students are aware of self-inflicted stress that arises through procrastination so time management is an area where students need to continue to develop. Ultimately, there are some radical structural changes schools can pursue to address the growing stress levels of students. Programs such as late start, alternative schools or eliminating academic competition have been implemented in districts attempting to find different ways to meet the needs of their students. Post-secondary stressors can be reduced by colleges revising admission standards to reduce the importance of cumulative GPAs and continued efforts to examine ways to make college more affordable.

### **Implications for Research**

This study is timely due to the rising levels of mental health issues affecting our current youth who are more distressed, more likely to suffer from major depression, and more prone to

suicide than the previous generation were at the same age (Twenge, et. al, 2019). Clearly, more research on teen well-being is emerging which will be helpful moving forward to help teens survive and advance through high school, but still, speculation remains on what is the ultimate cause of all of this social and emotional distress. Some research points to social media addiction whereas others have identified declining nutrition habits or sleep deprivation. This study however focused on stress as being the main culprit which is why stress in teens needs to continue to be studied. In the case of this study, the main cause of stress was academics so the relationship between the student and the schools must continue to be studied. This study only included one population but additional research would include comparisons between two populations where an aforementioned program (student choice breaks for example) are implemented. Also, longitudinal studies that follow up with students into their post-secondary experience would be beneficial to understand the long-term effects of stress. Of particular note, school connectedness appears to have a major effect on stress levels so research on methods to develop stronger bonds with the school would be beneficial. Finally, students mention the importance of having connections with teachers so more research on positive relationships and stress levels would be worth studying as a part of understanding the high school stress experience.

### **Impact of the Research Study on Practitioner**

Part of the enjoyment I had as a classroom teacher was to have a direct pulse on what the students were experiencing. I had the ability to control the classroom environment and could therefore have a tremendous influence over the experience of each child that entered my classroom. As an administrator, I am now removed from this intimate process. While I do have the ability to manage programs on a school wide basis, the most important aspect of a school and

student well-being remains at the classroom level through the relationships the students develop with the adults in their lives. As a practitioner, I was a bit startled by the results of this study. Students often report that they are stressed and I had no reason not to believe them. Teenagers have a lot going on and because I have the wisdom of having once been a teenager, I am familiar with the experience. However, I also have the advantage of being an adult and my own experiences with this age group confirm that being an adult contains more stress inducing events than my teen years. Maybe I have learned to adapt, or perhaps I have resources available to me that I did not have as a teen. Also, perspective tells me that with time, experience and maturation, the things that used to stress me out in high school are fairly insignificant when compared to my current middle-aged experience. That perspective however will not be true for every student. There are significant traumatic events occurring every day for some students that may carry those experiences the rest of their lives. Either way, I am shocked by the level of stress reported in the student survey which means regardless of what I might think about stress in teens versus adults, the students' stress is very real. In fact, their high stress scores denote the importance of listening to our students and validating their voices so that we can work together to help students survive the high school experience.

### **Conclusion**

A popular metaphor (the Boiling Frog) perfectly sums up the long-term effects of unmanaged stress and why it remains a concern for teens. As the story goes, if a frog is suddenly dropped into boiling water, it will instinctively jump out. However, if the frog is put into comfortable, lukewarm water that is gradually brought to a boil, the frog won't recognize the danger and will instead continue to adjust to the heat until it slowly gets cooked. Working with students who are constantly stressed can be a stressful experience for everyone involved because

we don't want our students to end up as boiled frogs. That statement is not made to be flip, rather it is a sincere reaction for any professional who works with youth and witnesses the increasing stressors and pressures placed on our young people every day. It is critical for students to be able to identify stress and manage it in proactive way and it is imperative for schools to recognize the important position they have to ensure this happens.

This problem of practice was identified through practitioner experience with high school students experiencing stress and a national survey producing stress scores for teenagers higher than adults for the first time in survey history. Although the school in this study was proactive in gathering internal and external behavior data for all students, student voice and perceptions about their own experiences with school was lacking. The purpose of this study was to explore those student voices to examine and understand the stress experiences of high school students.

The primary data for this study was gathered through a student perception survey that included closed and open responses for both quantitative and qualitative data and analysis. Additional student interview responses were added to provide depth in understanding personal perspectives on stress. The two data sources combined to allow students voices to tell the story of the student stress experience and to provide schools with information to determine their roles in this adventure.

Anyone who sees the results of this study can most likely relate similar experiences from their own school environment. The school in this study does not have the market cornered for highly stressed students. Just because holding down a job and raising a family may seem to be more stress inducing than turning in homework, the data on how students are experiencing stress cannot be ignored; schools must give students a seat at the decision-making table. Schools must be willing to make profound structural and program changes that are truly student-centered. If

communities are serious about their concerns for increases in student anxiety, depression and suicide yet continue to roll out the same tired, stress-inducing structures and programs, then maybe those communities aren't as serious about student well-being as they claim.

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## Appendices

### Appendix A

#### Student Risk Screening Scale – Internalizing and Externalizing (SRSS-IE) (example)

DATE:			Student Risk Screening Scale - Internalizing and Externalizing (SRSS-IE) MIDDLE and HIGH SCHOOL USE 2016 - 2017														
TEACHER NAME:																	
PERIOD RATED:			<p>Note. Peer rejection is summed in the SRSS-E and SRSS-I TOTAL scores.</p> <p>SRSS-I TOTAL score; SRSS-IE TOTAL scores are under construction and should not be use for decision making. The item Peer Rejection is only added once to the SRSS-IE TOTAL score.</p>														
0 = Never 1 = Occasionally 2 = Sometimes 3 = Frequently Use the above scale to rate each item for each student.			Steal	Lie, Cheat, Sneak	Behavior Problem	Peer Rejection	Low Academic Achievement	Negative Attitude	Aggressive Behavior	Emotionally Flat	Shy; Withdrawn	Sad; Depressed	Anxious	Lonely	SRSS-E TOTAL	SRSS-I TOTAL	SRSS-IE TOTAL
Student Name	Student ID	Count															
Example: Smith, Sally	11111	0	0	0	3	1	3	3	3	2	2	2	3	0	13	10	22
Example: Lane, Scarlett	112341	0	0	0	3	1	3	3	3	0	0	1	2	0	13	4	16
		1													0	0	0
		2													0	0	0
		3													0	0	0
		4													0	0	0
		5													0	0	0
		6													0	0	0
		7													0	0	0
		8													0	0	0

Lane, K. L., Oakes, W. P., Cantwell, E. D., Schatschneider, C., Menzies, H., Crittenden, M., & Messenger, M. (2106). Student Risk Screening Scale for Internalizing and Externalizing Behaviors: Preliminary cut scores to support data-informed decision making in middle and high schools.

## Appendix B

### Student Stress Perception Survey

This study seeks to develop an understanding about stress perception from students and the adaptive abilities they use to manage stress and the role of the school in developing adaptive abilities.

1. Grade                                      9          10          11          12
2. Gender                                    M          F          X
3. GPA                                        < 2.0   2.0-2.5   2.5-3.0   3.0-3.5   3.5-3.99   4.0+
4. Average Amount spent per night on school work   <30 min   30-60   60-90   90-120   120-150  
150-180   >180
5. Post-Secondary Plans   4-year   2-year e   Trade School   Military   Workforce   Unsure
6. How connected do you feel towards your school?

0-not at all      1-slightly      2-Moderately      3-Very      4-extremely

[The Perceived Stress Scale (PSS) is a common stress scale from Cohen, S., Kamarck, T., and Mermelstein, R. (1983). The PSS questionnaire will be delivered via Google Forms but the written survey is provided for reference]

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate by circling how often you felt or thought a certain way.

0 = Never   1 = Almost Never   2 = Sometimes   3 = Fairly Often   4 = Very Often

7. In the last month, how often have you been upset because of something that happened unexpectedly?

0          1          2          3          4

8. In the last month, how often have you felt that you were unable to control the important things in your life?

0          1          2          3          4

9. In the last month, how often have you felt nervous and “stressed”?

0          1          2          3          4

10. In the last month, how often have you felt confident about your ability to handle your personal problems?

0          1          2          3          4

11. In the last month, how often have you felt that things were going your way?

0          1          2          3          4

12. In the last month, how often have you found that you could not cope with all the things that you had to do?

0      1      2      3      4

13. In the last month, how often have you been able to control irritations in your life?

0      1      2      3      4

14. In the last month, how often have you felt that you were on top of things?

0      1      2      3      4

15. In the last month, how often have you been angered because of things that were outside of your control?

0      1      2      3      4

16. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

0      1      2      3      4

[Sheldon Cohen, Tom Kamarck and Robin Mermelstein. Journal of Health and Social Behavior Vol. 24, No. 4 (Dec., 1983), pp. 385-396 ]

17. In the past month, how much do each of the following conditions contribute to the amount of stress you experience. (0 = never to 4 = often)

a.	Academics	0	1	2	3	4
b.	Social	0	1	2	3	4
c.	Home	0	1	2	3	4
d.	World Events	0	1	2	3	4

18. How much do the following people or programs help you manage your stress?

(0 = never to 4 = often)

A.	Friends	0	1	2	3	4
B.	Parents	0	1	2	3	4
C.	Siblings	0	1	2	3	4
D.	Teachers	0	1	2	3	4
E.	Counselor/ Social Worker	0	1	2	3	4
F.	School Programs (Ci3T, Connect With Kids)	0	1	2	3	4
G.	Media	0	1	2	3	4

The following questions are open response questions, please answer the questions to the best of your ability and as a reminder, all responses are kept confidential.

18. When you experience stress, what are some of the methods you use to manage stress?
19. How do you know that these stress management methods reduce your stress?
20. How did you learn about these stress management techniques?

## Appendix C

### Interview Protocol

Welcome and thank you for your participation today. My name is Bill DeWitt and I am a graduate student at the University of Arkansas conducting a study in partial fulfillment of the requirements for the degree of doctorate in education. Thank you for completing the surveys, and this follow-up interview will take about 10 minutes and will include questions related to your knowledge of stress and self-care. I would like your permission to tape record this interview, so I may accurately document the information you convey. If at any time during the interview you wish to discontinue the use of the recorder or the interview itself, please feel free to let me know. All of your responses are confidential. Your responses will remain confidential and will be used to develop a better understanding of how you and others view student stress levels. The purpose of this study is to increase our understanding social and emotional learning tools that may contribute to a reduction in student stress.

Your participation in this interview is completely voluntary. If at any time you need to stop or take a break, please let me know. You may also withdraw your participation at any time without consequence. Do you have any questions or concerns before we begin? Then with your permission we will begin the interview.

1. Please state your name, your grade and tell a little about yourself, particularly about your activities at this school.
2. How would you describe yourself as a student?
3. Can you tell me about some the stress you experience here at school?
4. Are there ways you can tell when stress is occurring? (get specific examples)
5. When you are experiencing stress, what are ways you manage stress and how do you know that these methods will help to reduce your stress?
6. Are there other stress reduction methods you would utilize but currently do not have access to?
7. How do you feel your school does to help you manage your stress? (look for narratives)
8. If you were in charge of the school system, is there anything you would do differently to help students with their stress?
9. What do you think will happen to your stress level as you get older?
10. Do you have any additional comments about student stress?

I appreciate your willingness to participate in this interview. As I work on collecting the data I may be in contact to follow-up on some of your responses to help me complete the study. Thank you for your time today.

## Appendix D

### IRB Expedited Approval




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**To:** William Patrick DeWitt  
**From:** Douglas James Adams, Chair  
 IRB Committee  
**Date:** 08/21/2019  
**Action:** **Expedited Approval**  
**Action Date:** 08/19/2019  
**Protocol #:** 1901173524  
**Study Title:** Teen Stress and the High School Experience: Fostering the Adaptive Abilities to Survive and Advance  
**Expiration Date:** 06/23/2020  
**Last Approval Date:**

The above-referenced protocol has been approved following expedited review by the IRB Committee that oversees research with human subjects.

If the research involves collaboration with another institution then the research cannot commence until the Committee receives written notification of approval from the collaborating institution's IRB.

It is the Principal Investigator's responsibility to obtain review and continued approval before the expiration date.

Protocols are approved for a maximum period of one year. You may not continue any research activity beyond the expiration date without Committee approval. Please submit continuation requests early enough to allow sufficient time for review. Failure to receive approval for continuation before the expiration date will result in the automatic suspension of the approval of this protocol. Information collected following suspension is unapproved research and cannot be reported or published as research data. If you do not wish continued approval, please notify the Committee of the study closure.

**Adverse Events:** Any serious or unexpected adverse event must be reported to the IRB Committee within 48 hours. All other adverse events should be reported within 10 working days.

**Amendments:** If you wish to change any aspect of this study, such as the procedures, the consent forms, study personnel, or number of participants, please submit an amendment to the IRB. All changes must be approved by the IRB Committee before they can be initiated.

You must maintain a research file for at least 3 years after completion of the study. This file should include all correspondence with the IRB Committee, original signed consent forms, and study data.

cc: John C Pijanowski, Investigator